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## Caso de carga 1

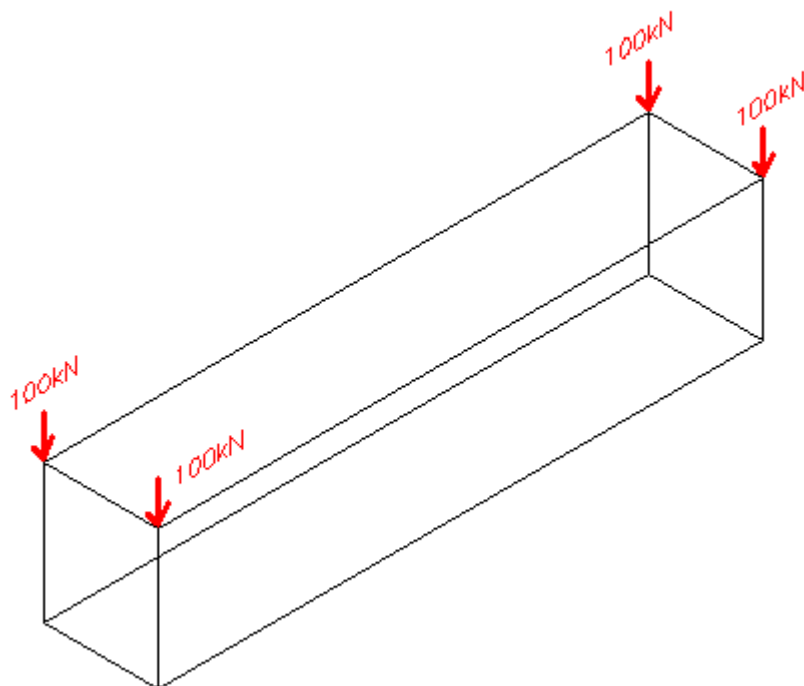


Figura A.2.1.1 - Caso de carga 1

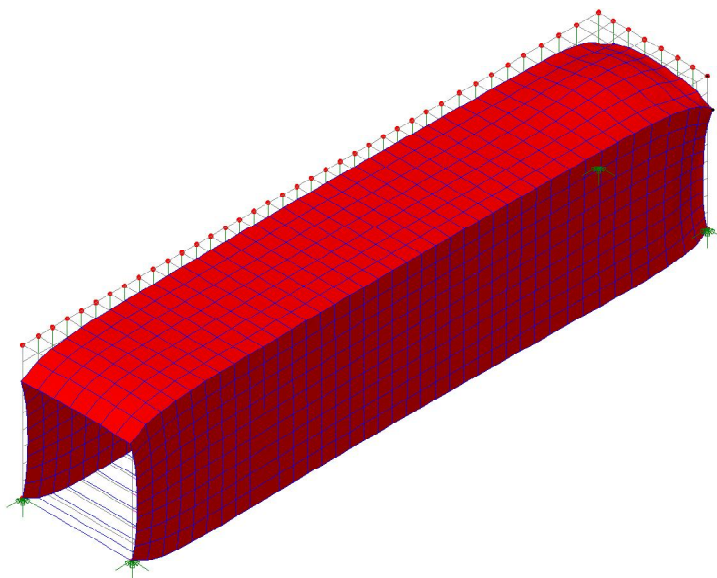
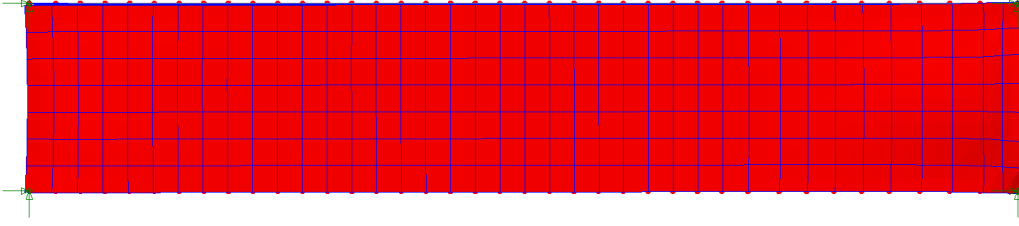
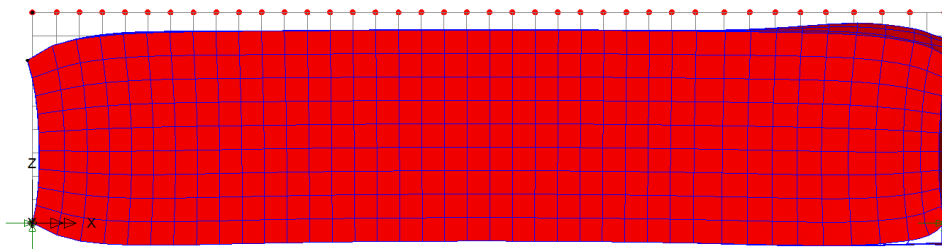


Figura A.2.1.2 – Vista geral da deformada

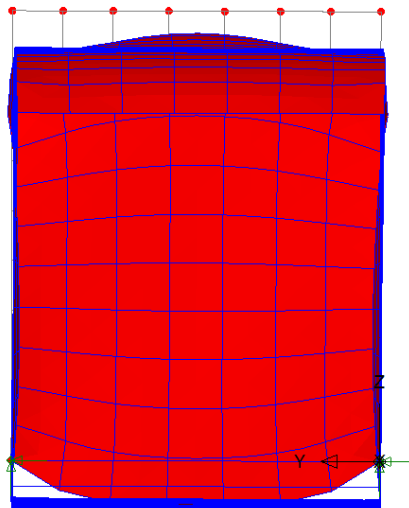
Deslocamento máximo: 0,3 mm.



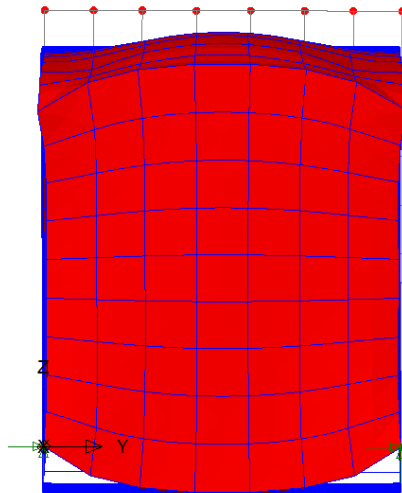
**Figura A.2.1.3 - Vista da cobertura deformada**



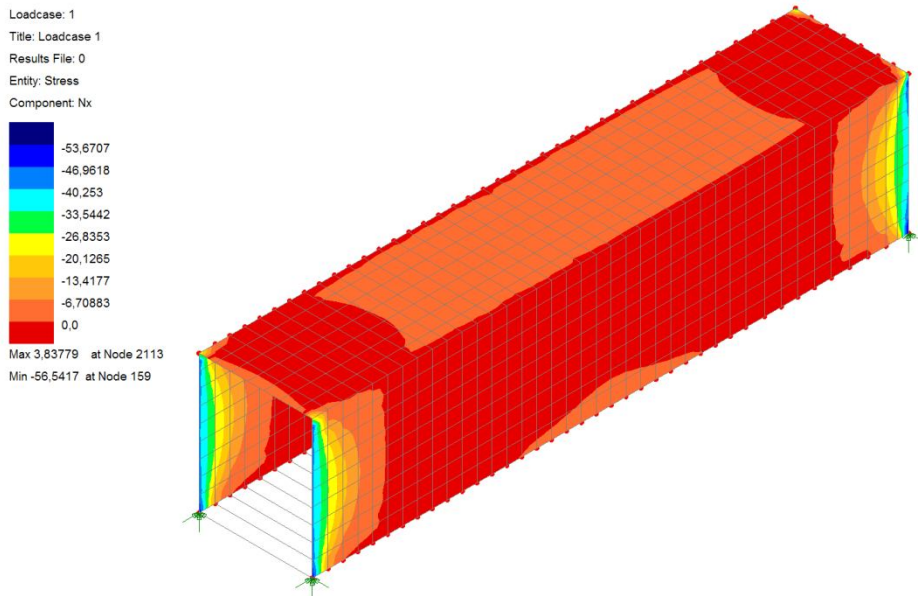
**Figura A.2.1.4 - Vista da face lateral deformada**



**Figura A.2.1.5 - Vista da face da porta deformada**



**Figura A.2.1.6 - Vista da face frontal deformada**



**Figura A.2.1.7 – Vista geral – Esforço Nx**

Loadcase: 1  
Title: Loadcase 1  
Results File: 0  
Entity: Stress  
Component: Ny  
-17,8241  
-14,8534  
-11,8827  
-8,91205  
-5,94136  
-2,97068  
0,0  
2,97068  
5,94136  
Max 7,91946 at Node 134  
Min -18,8167 at Node 160

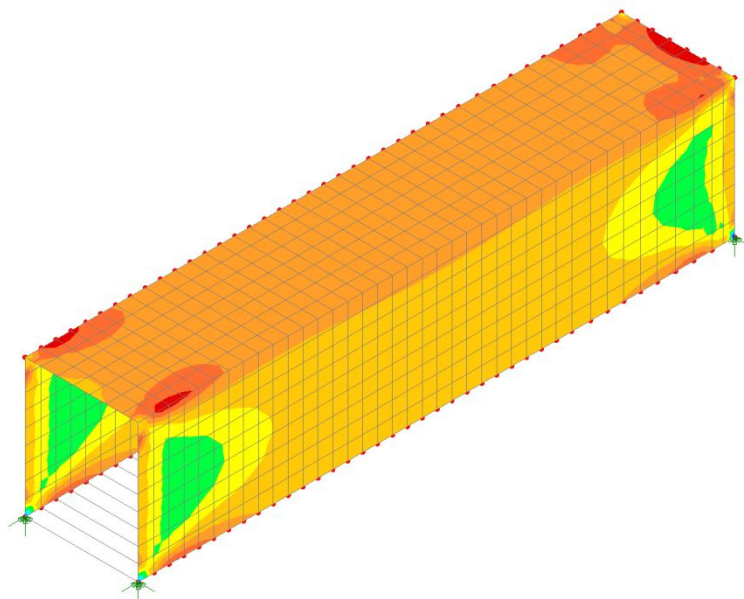


Figura A.2.1.8 – Vista geral – Esforço Ny

Loadcase: 1  
Title: Loadcase 1  
Results File: 0  
Entity: Stress  
Component: Nxy  
-31,1869  
-23,3902  
-15,5934  
-7,79672  
1,77636E-15  
7,79672  
15,5934  
23,3902  
31,1869  
Max 35,0855 at Node 4521  
Min -35,085 at Node 4153

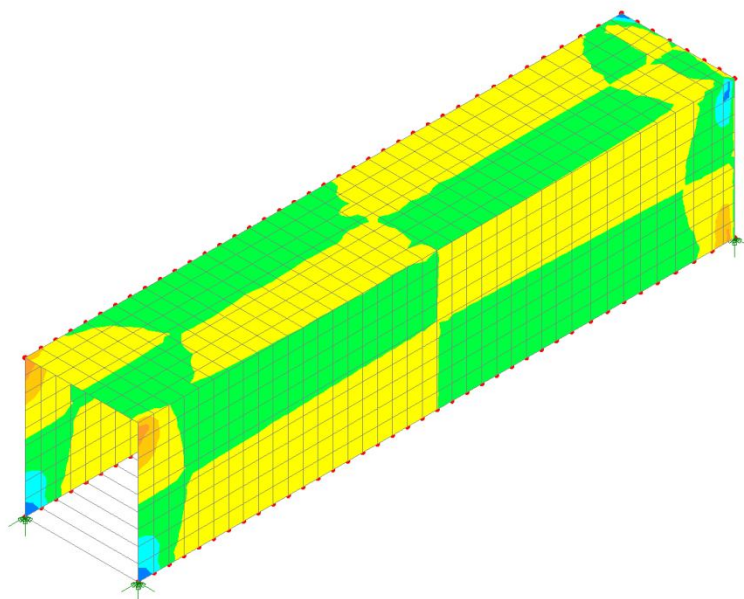
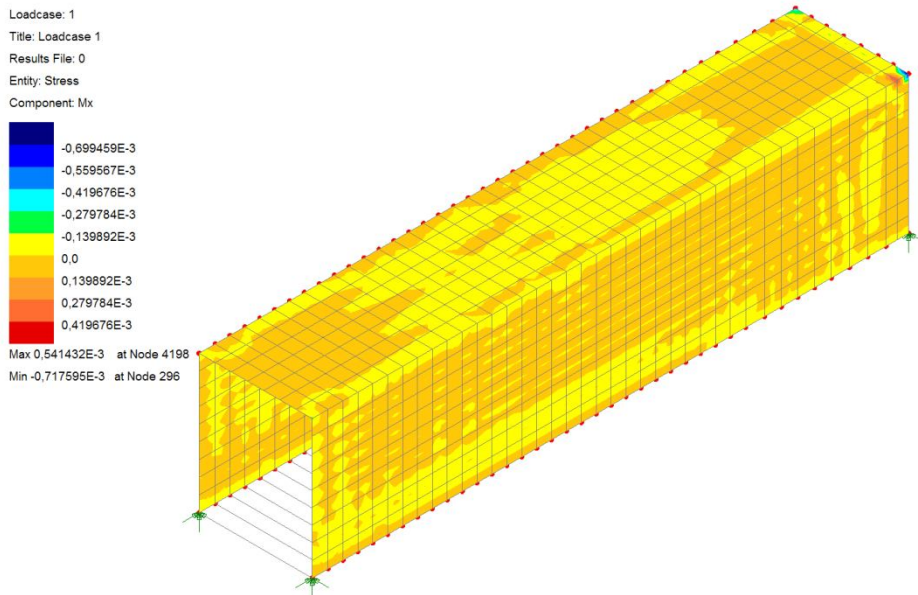
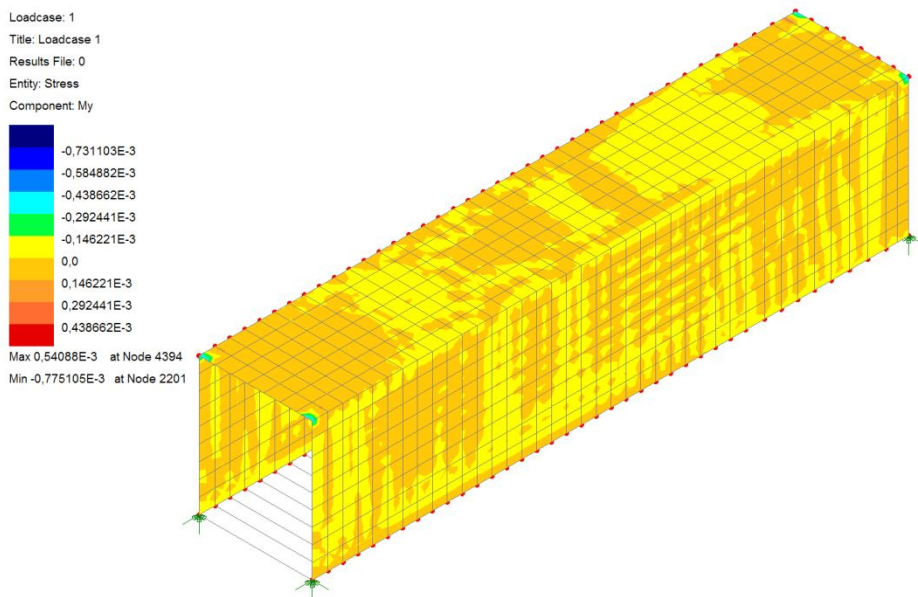


Figura A.2.1.9 – Vista geral – Esforço Nxy

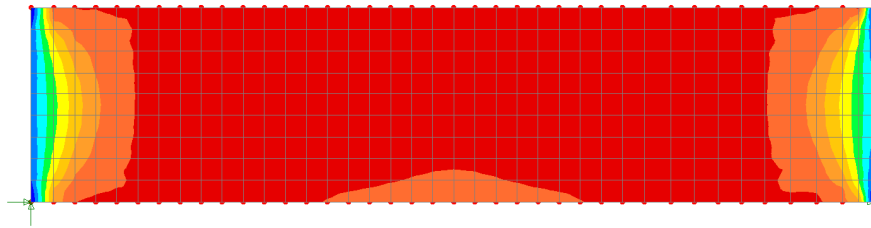


**Figura A.2.1.10 – Vista geral – Esforço Mx**



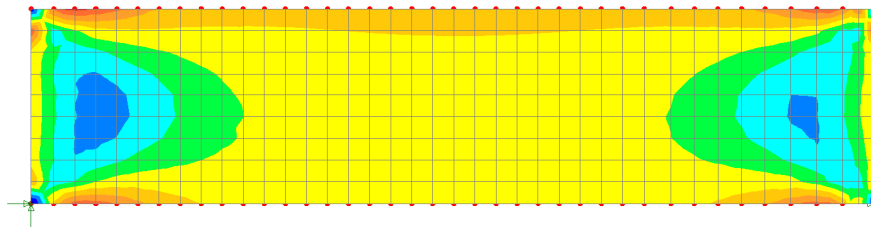
**Figura A.2.1.11 – Vista geral – Esforço My**

Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: Nx  
 -50,2613  
 -43,9787  
 -37,696  
 -31,4133  
 -25,1307  
 -18,848  
 -12,5653  
 -6,28267  
 0,0  
 Max 1,34869 at Node 1068  
 Min -55,1953 at Node 296



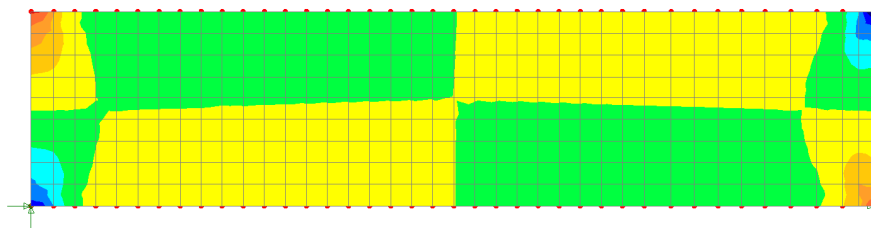
**Figura A.2.1.12 – Face lateral - Esforço Nx**

Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -11,9621  
 -9,56965  
 -7,17724  
 -4,78483  
 -2,39241  
 0,0  
 2,39241  
 4,78483  
 7,17724  
 Max 7,88005 at Node 139  
 Min -13,6517 at Node 1



**Figura A.2.1.13 – Face lateral - Esforço Ny**

Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -27,0158  
 -20,2618  
 -13,5079  
 -6,75394  
 1,77636E-15  
 6,75394  
 13,5079  
 20,2618  
 27,0158  
 Max 28,4283 at Node 13  
 Min -32,3572 at Node 296

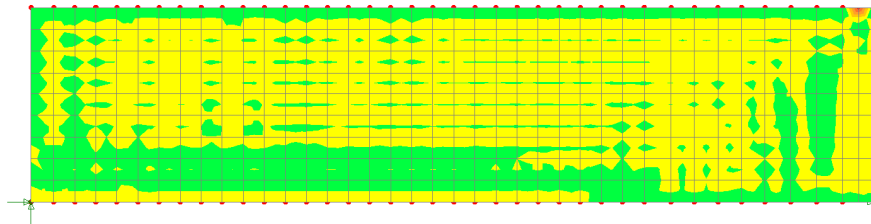


**Figura A.2.1.14 – Face lateral - Esforço Nxy**

Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: Mx

-0,16191E-3  
 -0,121433E-3  
 -0,080955E-3  
 -0,0404775E-3  
 0,0  
 0,0404775E-3  
 0,080955E-3  
 0,121433E-3  
 0,16191E-3

Max 0,186482E-3 at Node 1925  
 Min -0,177836E-3 at Node 53

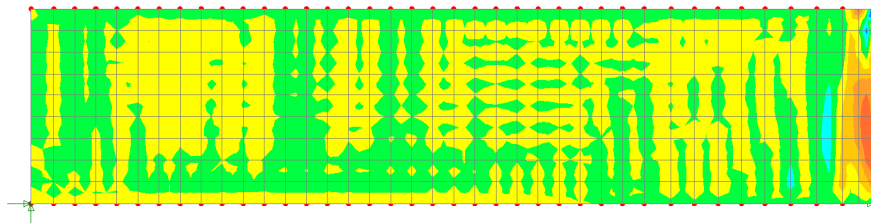


**Figura A.2.1.15 – Face lateral - Esforço Mx**

Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: My

-0,0956865E-3  
 -0,0717649E-3  
 -0,0478433E-3  
 -0,0239216E-3  
 -6,77626E-21  
 0,0239216E-3  
 0,0478433E-3  
 0,0717649E-3  
 0,0956865E-3

Max 0,109964E-3 at Node 294  
 Min -0,105331E-3 at Node 296

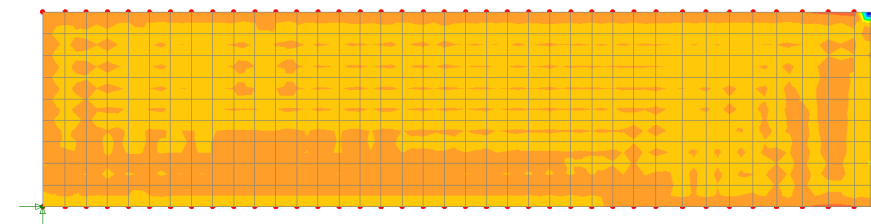


**Figura A.2.1.16 – Face lateral - Esforço My**

Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: Mx

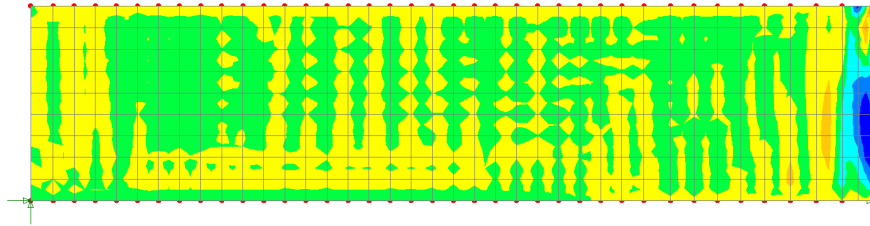
-0,156085E-3  
 -0,130071E-3  
 -0,104057E-3  
 -0,0780426E-3  
 -0,0520284E-3  
 -0,0260142E-3  
 0,0  
 0,0260142E-3  
 0,0520284E-3

Max 0,0562922E-3 at Node 294  
 Min -0,177836E-3 at Node 53



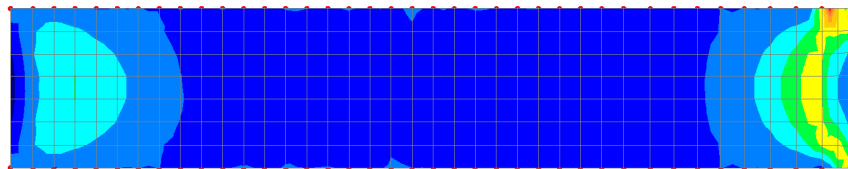
**Figura A.2.1.17 – Face lateral 2 - Esforço Mx**

Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: My  
 -0,095195E-3  
 -0,0713962E-3  
 -0,0475975E-3  
 -0,0237987E-3  
 6,77626E-21  
 0,0237987E-3  
 0,0475975E-3  
 0,0713962E-3  
 0,095195E-3  
 Max 0,109984E-3 at Node 294  
 Min -0,104225E-3 at Node 77



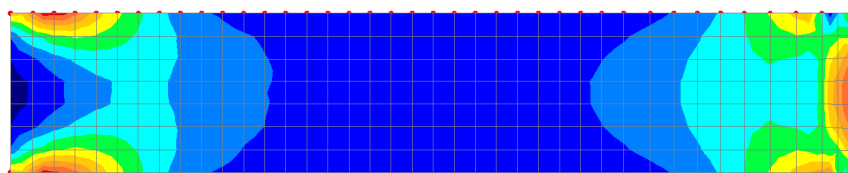
**Figura A.2.1.18 – Face lateral 2 - Esforço My**

Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: Nx  
 -0,887324  
 0,0  
 0,887324  
 1,77465  
 2,66197  
 3,5493  
 4,43662  
 5,32395  
 6,21127  
 Max 6,69204 at Node 50  
 Min -1,29388 at Node 207



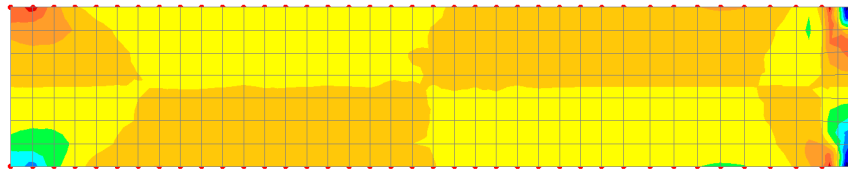
**Figura A.2.1.19 – Cobertura - Esforço Nx**

Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 0,0  
 0,948115  
 1,89623  
 2,84435  
 3,79246  
 4,74058  
 5,68869  
 6,63681  
 7,58492  
 Max 8,19385 at Node 237  
 Min -0,339182 at Node 207



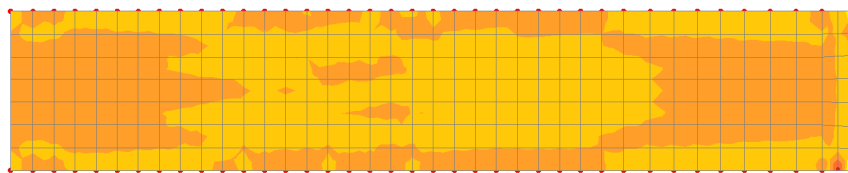
**Figura A.2.1.20 – Cobertura - Esforço Ny**

Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -6,43488  
 -5,1479  
 -3,86093  
 -2,57395  
 -1,28698  
 0,0  
 1,28698  
 2,57395  
 3,86093  
 Max 4,46374 at Node 50  
 Min -7,11904 at Node 1926



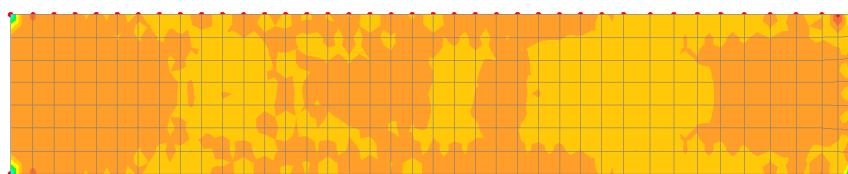
**Figura A.2.1.21 – Cobertura Nxy**

Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -1,6636E-3  
 -1,38633E-3  
 -1,10907E-3  
 -0,831801E-3  
 -0,554534E-3  
 -0,277267E-3  
 0,0  
 0,277267E-3  
 0,554534E-3  
 Max 0,705784E-3 at Node 1925  
 Min -1,78962E-3 at Node 296

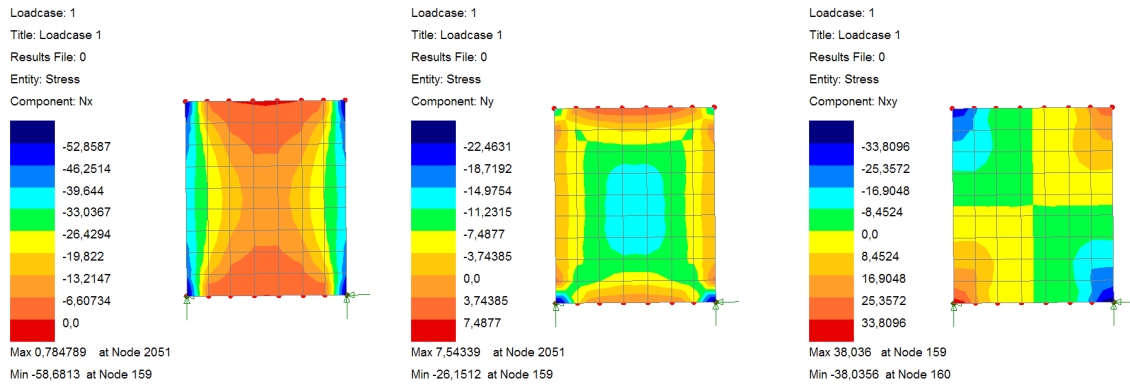


**Figura A.2.1.22 – Cobertura - Esforço Mx**

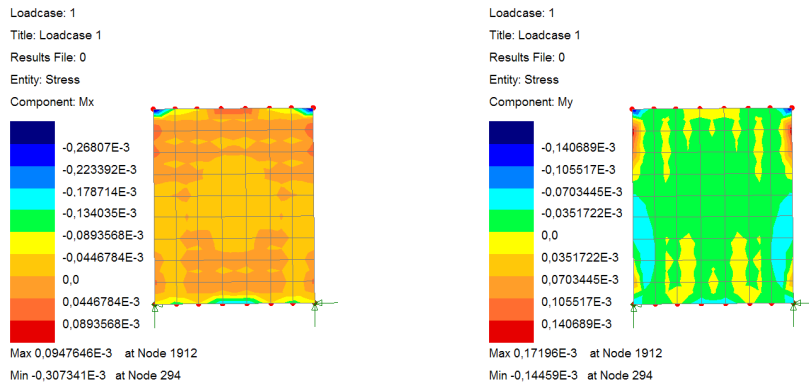
Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: My  
 -1,28649E-3  
 -1,07208E-3  
 -0,857662E-3  
 -0,643247E-3  
 -0,428831E-3  
 -0,214416E-3  
 0,0  
 0,214416E-3  
 0,428831E-3  
 Max 0,527605E-3 at Node 53  
 Min -1,40213E-3 at Node 294



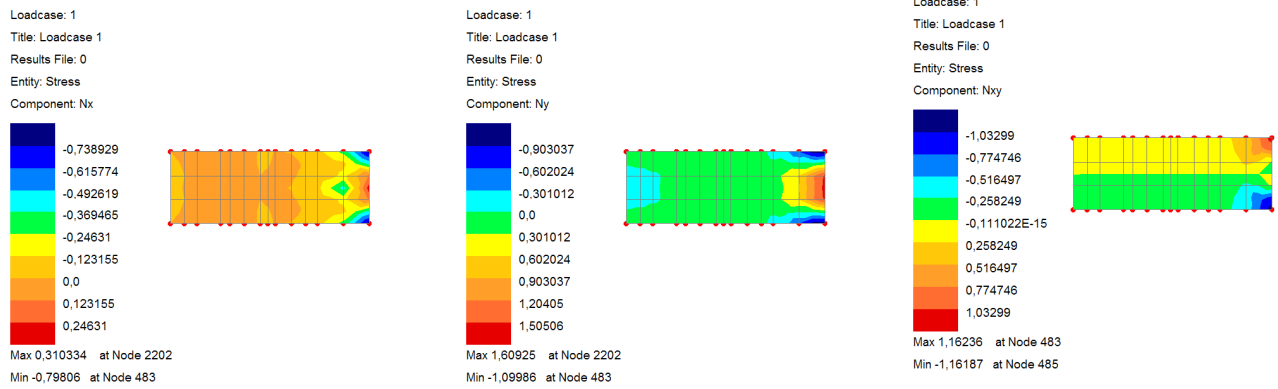
**Figura A.2.1.23 – Cobertura - Esforço My**



**Figura A.2.1.24 – Face frontal - Esforços Nx, Ny e Nxy**

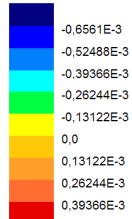


**Figura A.2.1.25 – Parte frontal - Esforço Mx e My**

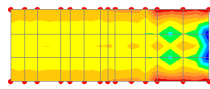


**Figura A.2.1.26 – FP - Esforços Nx, Ny e Nxy**

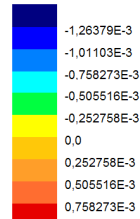
Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: Mx



Max 0.521226E-3 at Node 485  
 Min -0.659753E-3 at Node 2203



Loadcase: 1  
 Title: Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Component: My



Max 0.792797E-3 at Node 485  
 Min -1.48202E-3 at Node 2203

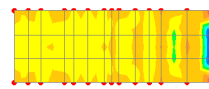


Figura A.2.1.27 – FP - Esforços Nx, Ny e Nxy

Scale=1.64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 6.373 at Elt/GP 759/1  
 MIN -90.45 at Elt/GP 17/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 5.000  
 Max 6.326 at Node 2002  
 Min -87.97 at Node 42

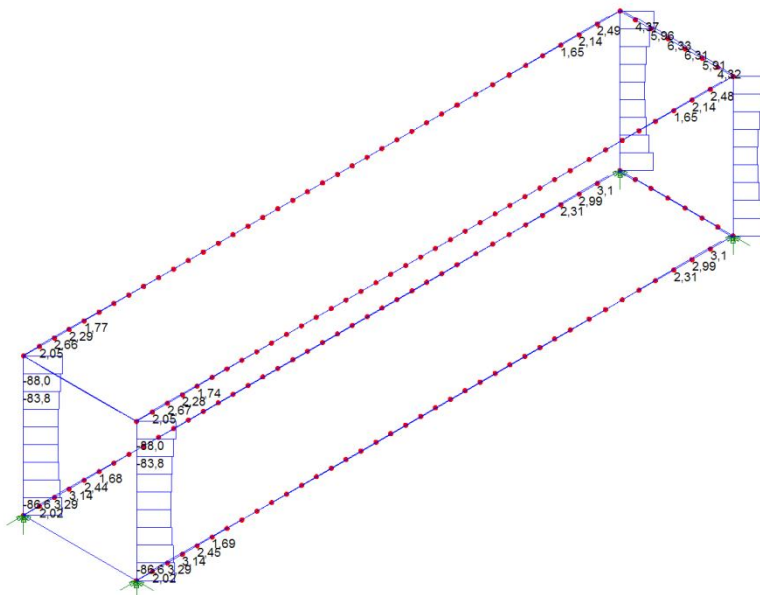
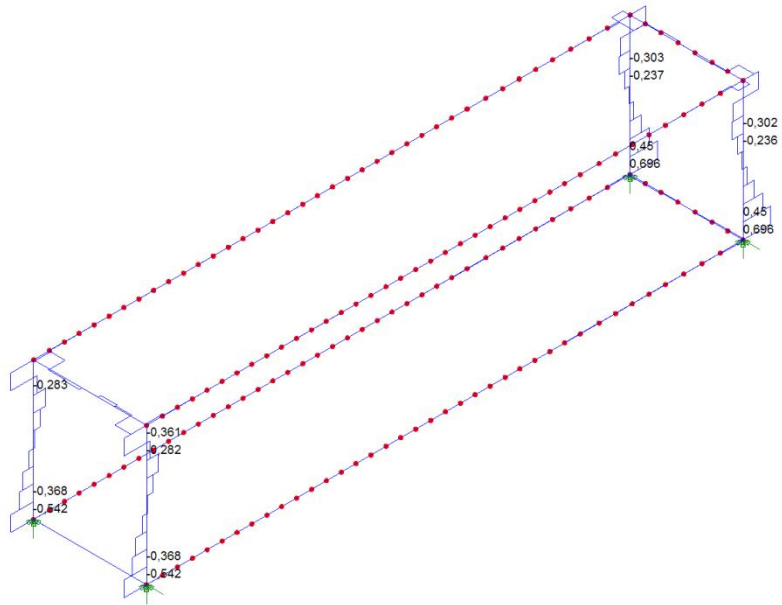


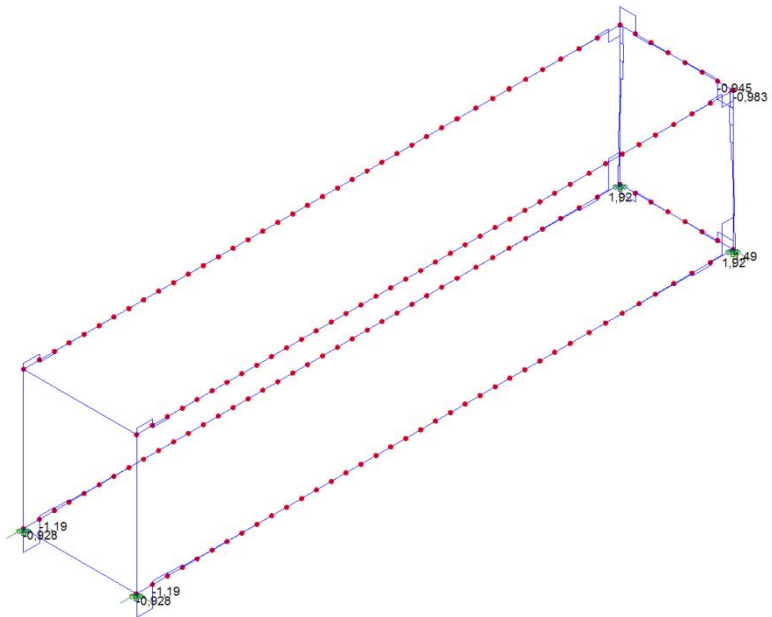
Figura A.2.1.28 – Vista geral – Diagrama Fx

Scale=1.64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.8132 at Elt/GP 61/1  
 MIN -0.6683 at Elt/GP 17/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 25.00  
 Max 0.6960 at Node 440  
 Min -0.5420 at Node 255



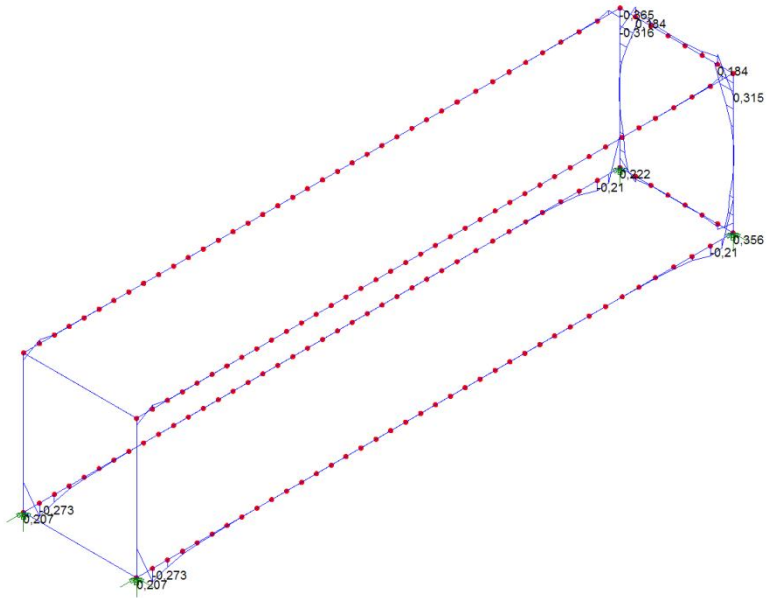
**Figura A.2.1.29 – Vista geral – Diagrama Fy**

Scale=1.64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 3.729 at Elt/GP 731/1  
 MIN -2.785 at Elt/GP 20/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 20.00  
 Max 1.919 at Node 1930  
 Min -1.195 at Node 37



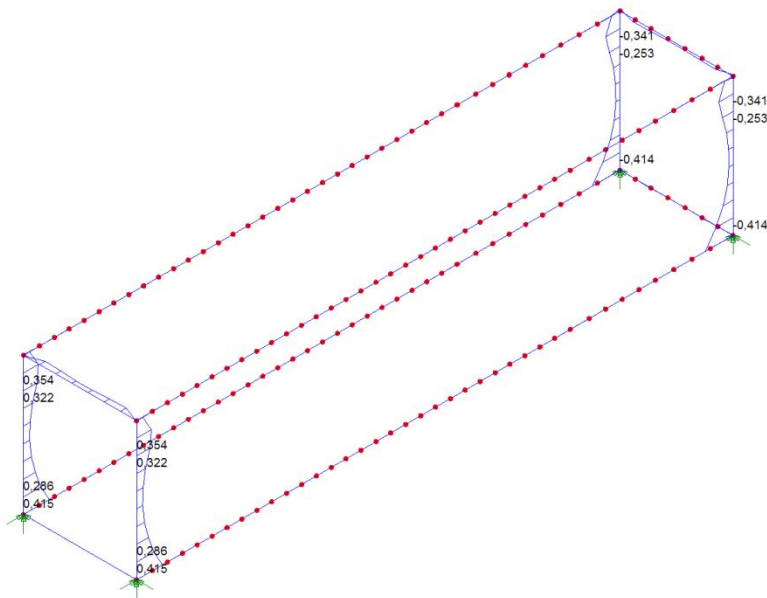
**Figura A.2.1.30 – Vista geral – Diagrama Fz**

Scale=1:64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.6670 at Eln/GP 731/11  
 MIN -0.4496 at Eln/GP 755/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 25.00  
 Max 0.3562 at Node 160  
 Min -0.3655 at Node 294

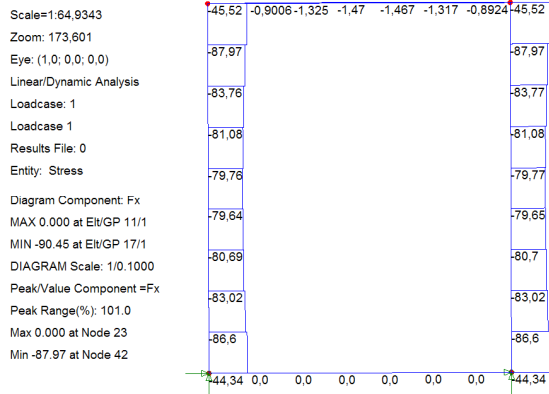


**Figura A.2.1.31 – Vista geral – Diagrama My**

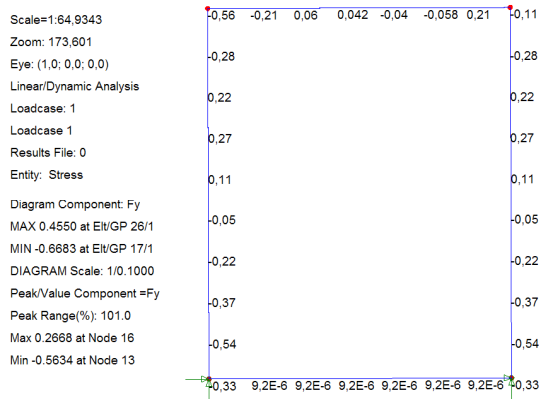
Scale=1:64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.6208 at Eln/GP 73/1  
 MIN -0.6650 at Eln/GP 61/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 20.00  
 Max 0.4151 at Node 255  
 Min -0.4140 at Node 71



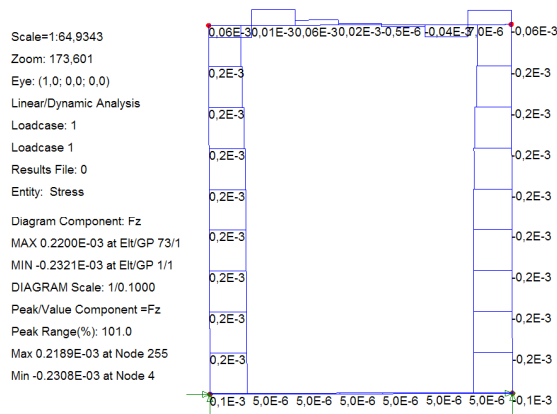
**Figura A.2.1.32 – Vista geral – Diagrama Mz**



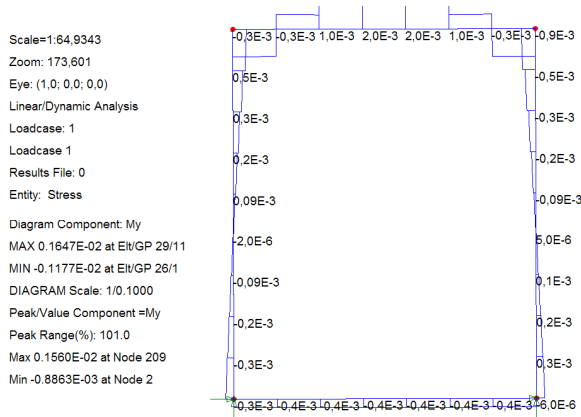
**Figura A.2.1.33 – Face da porta - Diagrama Fx**



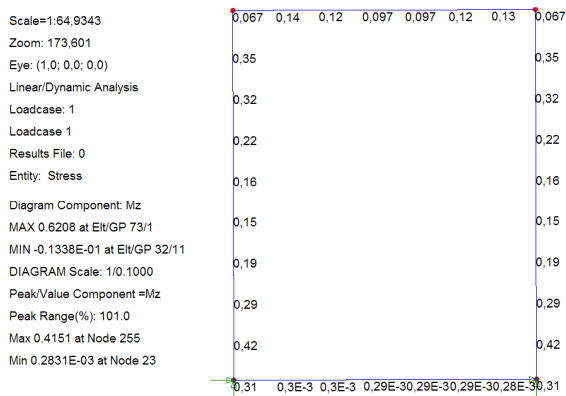
**Figura A.2.1.34 – Face da porta - Diagrama Fy**



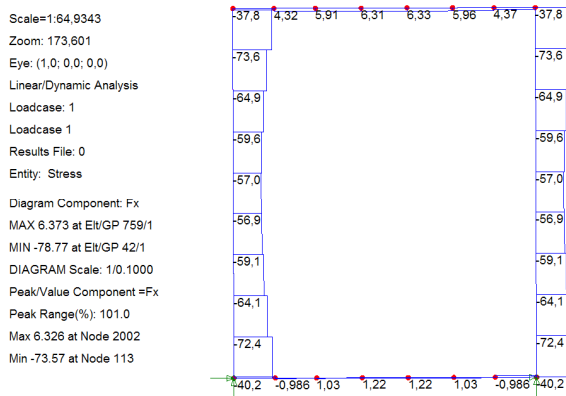
**Figura A.2.1.35 – Face da porta - Diagrama Fz**



**Figura A.2.1.36 – Face da porta - Diagrama My**

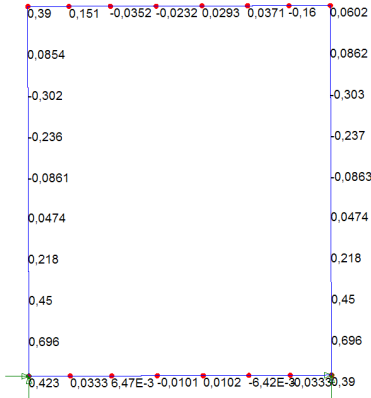


**Figura A.2.1.37 – Face da porta - Esforço Mz**



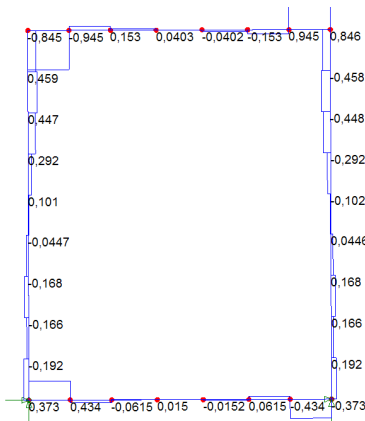
**Figura A.2.1.38 – Face frontal - Esforço Fx**

Scale=1:64,9343  
 Zoom: 173,601  
 Eye: (1,0,0,0,0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.8132 at Elt/GP 61/1  
 MIN -0.3367 at Elt/GP 764/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 101.0  
 Max 0.6960 at Node 440  
 Min -0.3027 at Node 107



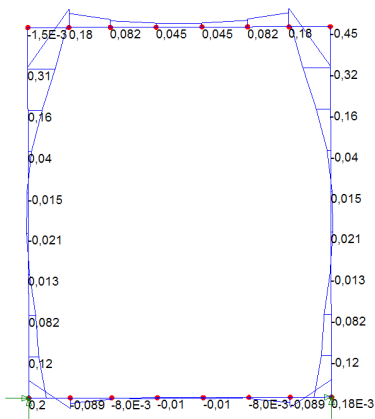
**Figura A.2.1.39 – Face frontal - Esforço Fy**

Scale=1:64,9343  
 Zoom: 173,601  
 Eye: (1,0,0,0,0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 2.116 at Elt/GP 764/1  
 MIN -2.117 at Elt/GP 755/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 101.0  
 Max 0.9451 at Node 2018  
 Min -0.9452 at Node 1948

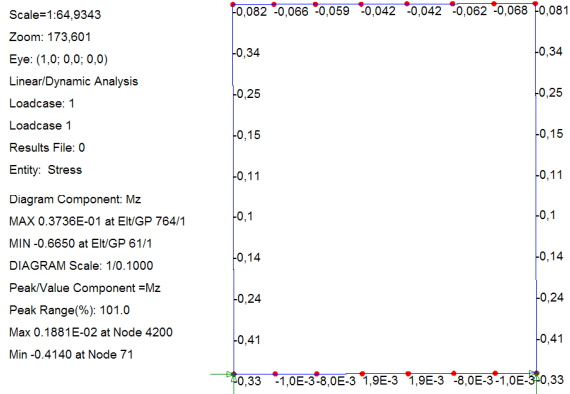


**Figura A.2.1.40 – Face frontal - Esforço Fz**

Scale=1:64,9343  
 Zoom: 173,601  
 Eye: (1,0,0,0,0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.4465 at Elt/GP 126/11  
 MIN -0.4496 at Elt/GP 755/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 101.0  
 Max 0.3149 at Node 1912  
 Min -0.4479 at Node 294

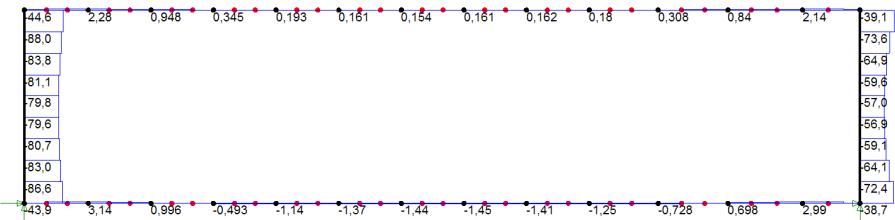


**Figura A.2.1.41 – Face frontal - Esforço My**



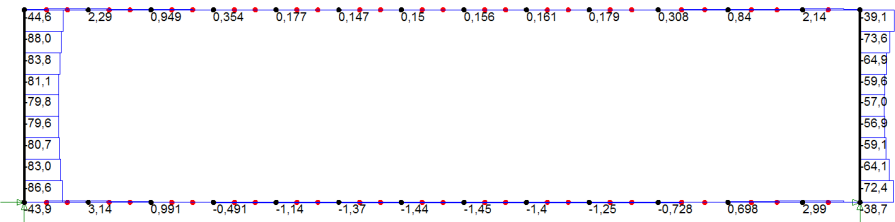
**Figura A.2.1.42 – Face frontal - Esforço Mz**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 3.432 at Elt/GP 88/1  
 MIN -90.45 at Elt/GP 89/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 40.00  
 Max 3.293 at Node 52  
 Min -87.97 at Node 291



**Figura A.2.1.43 – Face lateral 1 - Diagrama Fx**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 3.428 at Elt/GP 81/1  
 MIN -90.45 at Elt/GP 17/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 40.00  
 Max 3.290 at Node 51  
 Min -87.97 at Node 42



**Figura A.2.1.44 – Face lateral 2 - Diagrama Fx**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.8132 at Elt/GP 61/1  
 MIN -0.6672 at Elt/GP 89/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 40.00  
 Max 0.6960 at Node 440  
 Min -0.5420 at Node 255

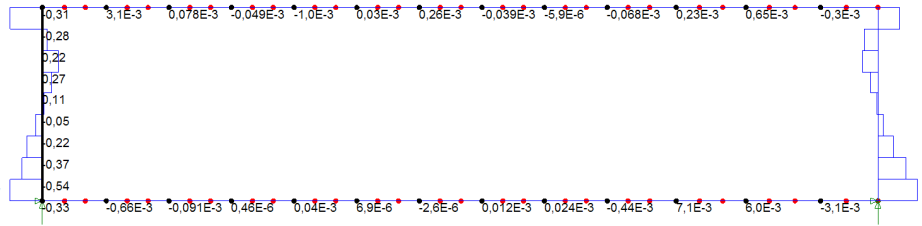


Figura A.2.1.45 – Face lateral 1 - Diagrama Fy

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.8131 at Elt/GP 34/1  
 MIN -0.6883 at Elt/GP 17/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 40.00  
 Max 0.6960 at Node 71  
 Min -0.5417 at Node 4

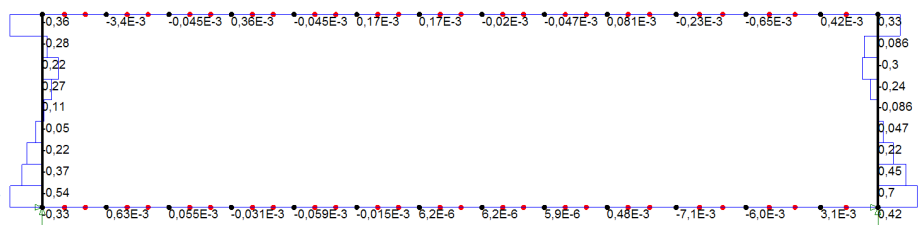


Figura A.2.1.46 – Face lateral 2 - Diagrama Fy

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 3.729 at Elt/GP 731/1  
 MIN -2.785 at Elt/GP 20/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 40.00  
 Max 1.919 at Node 1930  
 Min -1.393 at Node 12

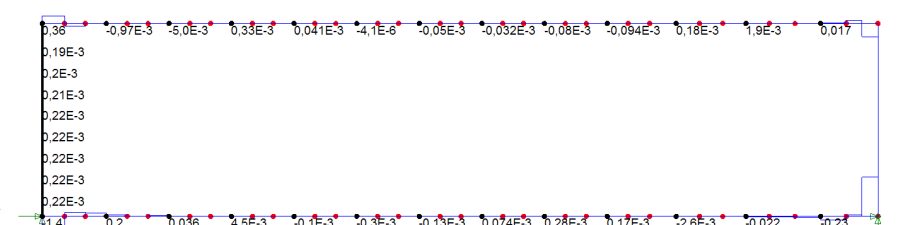
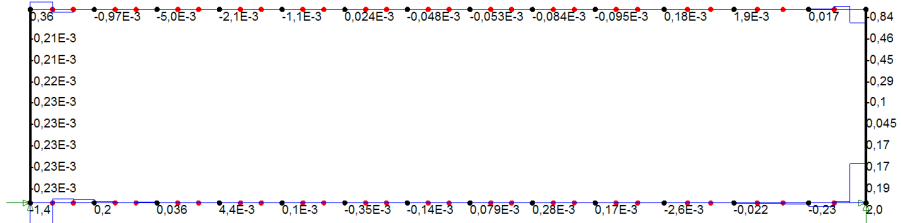


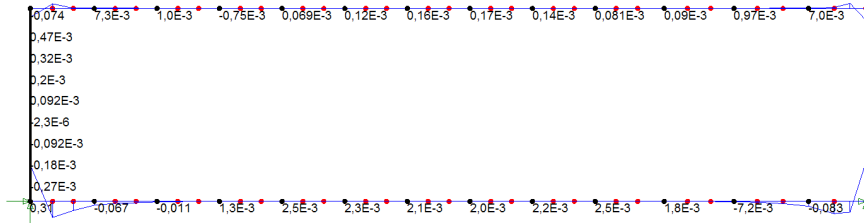
Figura A.2.1.47 – Face lateral 1 - Diagrama Fz

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 3.728 at Elt/GP 46/1  
 MIN -2.785 at Elt/GP 7/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 40.00  
 Max 2.002 at Node 159  
 Min -1.393 at Node 1



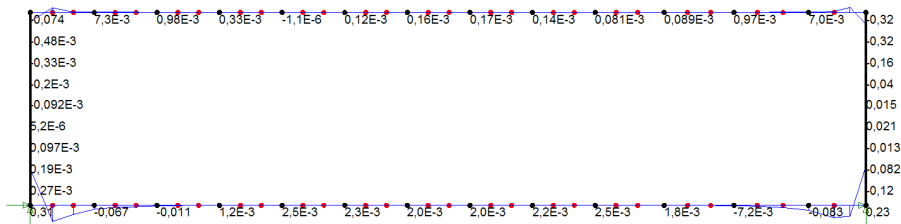
**Figura A.2.1.48 – Face lateral 2 - Diagrama Fz**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.6670 at Elt/GP 731/11  
 MIN -0.2733 at Elt/GP 20/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 40.00  
 Max 0.4338 at Node 160  
 Min -0.2733 at Node 37



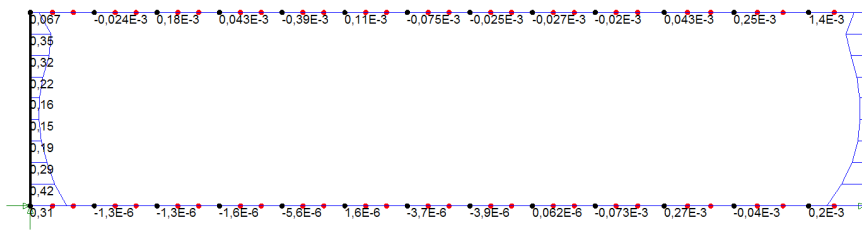
**Figura A.2.1.49 – Face lateral 1 - Diagrama My**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.6670 at Elt/GP 46/11  
 MIN -0.4464 at Elt/GP 42/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 40.00  
 Max 0.3105 at Node 1  
 Min -0.3235 at Node 294



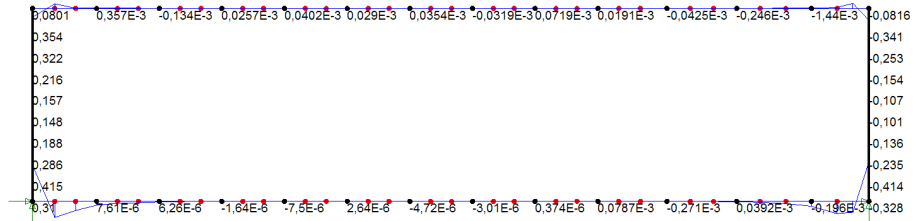
**Figura A.2.1.50 – Face lateral 2 - Diagrama My**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.6208 at Elt/GP 73/1  
 MIN -0.6850 at Elt/GP 61/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 40.00  
 Max 0.4151 at Node 255  
 Min -0.4140 at Node 440



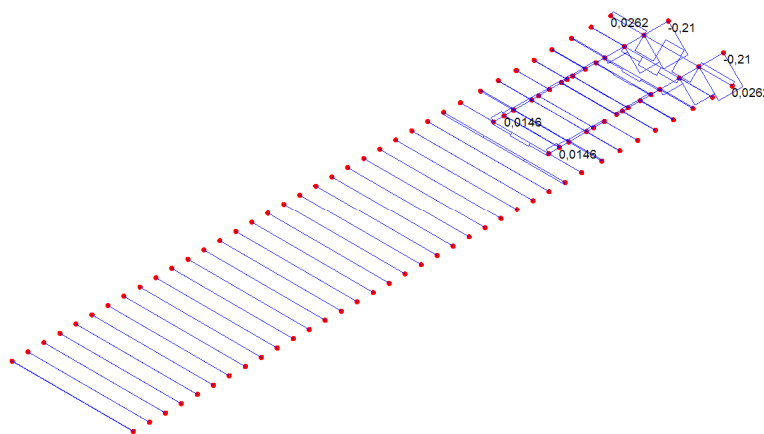
**Figura A.2.1.51 – Face lateral 1 - Diagrama Mz**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.6670 at Elt/GP 46/11  
 MIN -0.4464 at Elt/GP 42/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 40.00  
 Max 0.4150 at Node 4  
 Min -0.4140 at Node 71



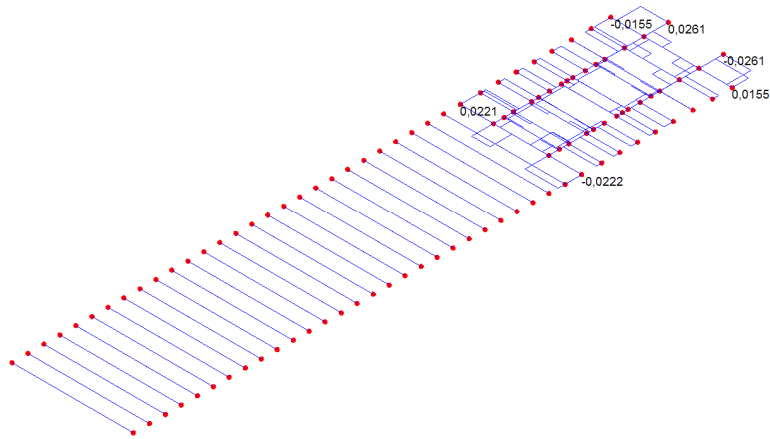
**Figura A.2.1.52 – Face lateral 2 - Diagrama Mz**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.3731E-01 at Elt/GP 891/1  
 MIN -0.2102 at Elt/GP 1971/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 5.000  
 Max 0.2621E-01 at Node 157  
 Min -0.2102 at Node 381



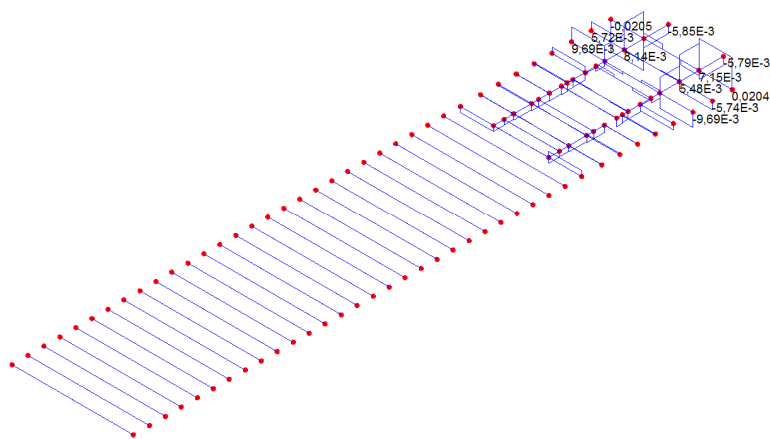
**Figura A.2.1.53 – Estrutura da base - Diagrama Fx**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0,2606E-01 at Elt/GP 1971/1  
 MIN -0,2606E-01 at Elt/GP 1383/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fy  
 Peak Range(%): 30,00  
 Max 0,2606E-01 at Node 381  
 Min -0,2606E-01 at Node 392



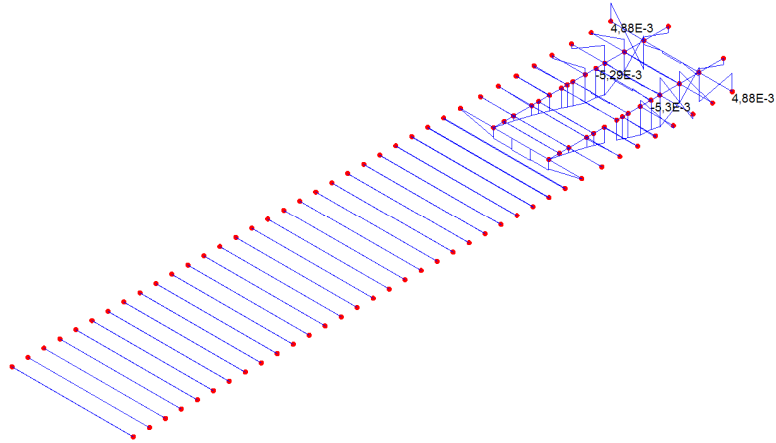
**Figura A.2.1.54 – Estrutura da base - Diagrama Fy**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0,2044E-01 at Elt/GP 304/1  
 MIN -0,2046E-01 at Elt/GP 303/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fz  
 Peak Range(%): 40,00  
 Max 0,2044E-01 at Node 157  
 Min -0,2046E-01 at Node 156



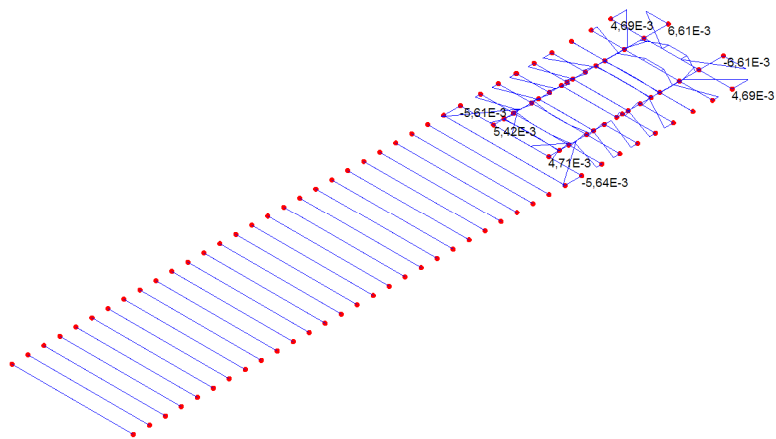
**Figura A.2.1.55 – Estrutura da base - Diagrama Fz**

Scale=1:64,9343  
Zoom: 98,453  
Eye: (-0,57735; -0,57735; 0,57735)  
Linear/Dynamic Analysis  
Loadcase: 1  
Loadcase 1  
Results File: 0  
Entity: Stress  
  
Diagram Component: My  
MAX 0.4885E-02 at Elt/GP 303/1  
MIN -0.8505E-02 at Elt/GP 850/1  
DIAGRAM Scale: 1/0.1000  
Peak/Value Component =My  
Peak Range(%): 5.000  
Max 0.4885E-02 at Node 156  
Min -0.5304E-02 at Node 419

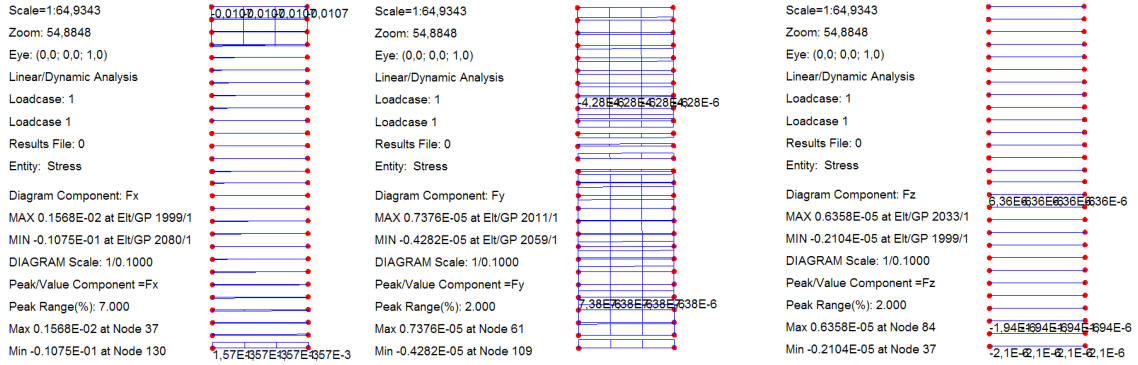


**Figura A.2.1.56 – Estrutura da base - Diagrama My**

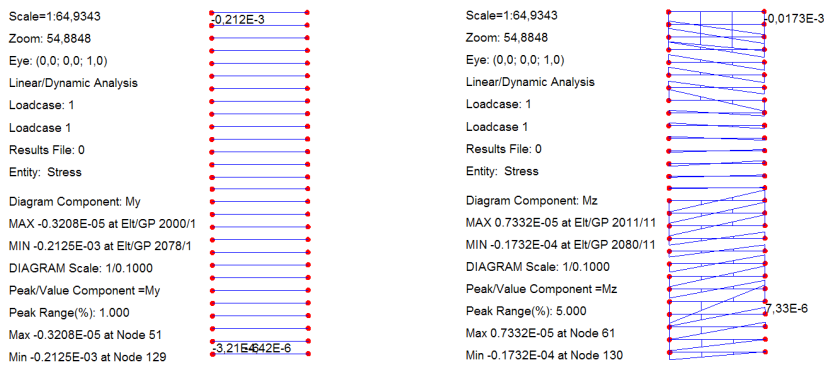
Scale=1:64,9343  
Zoom: 98,453  
Eye: (-0,57735; -0,57735; 0,57735)  
Linear/Dynamic Analysis  
Loadcase: 1  
Loadcase 1  
Results File: 0  
Entity: Stress  
  
Diagram Component: Mz  
MAX 0.8152E-02 at Elt/GP 306/1  
MIN -0.6615E-02 at Elt/GP 1383/11  
DIAGRAM Scale: 1/0.1000  
Peak/Value Component =Mz  
Peak Range(%): 25.00  
Max 0.6612E-02 at Node 381  
Min -0.6615E-02 at Node 392



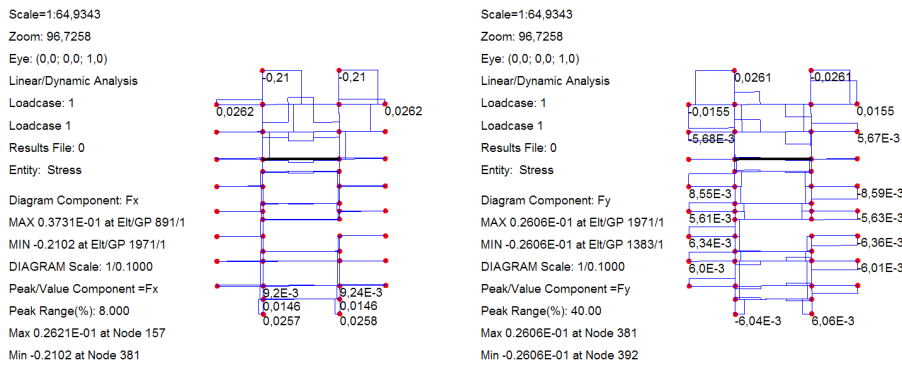
**Figura A.2.1.57 – Estrutura da base - Diagrama Mz**



**Figura A.2.1.58 – Perfis transversais - Diagrama Fx, Fy e Fz**

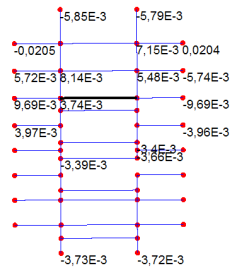


**Figura A.2.1.59 – Perfis transversais - Diagrama My e Mz**



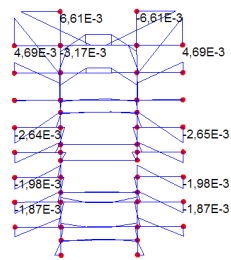
**Figura A.2.1.60 – Perfis transversais - Abertura para os garfos - Diagrama Fx, Fy**

Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.2044E-01 at Elt/GP 304/1  
 MIN -0.2046E-01 at Elt/GP 303/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 42.00  
 Max 0.2044E-01 at Node 157  
 Min -0.2046E-01 at Node 156

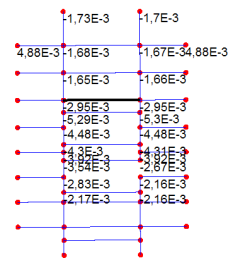


**Figura A.2.1.61 – Perfis transversais - Abertura para os garfos - Diagrama Fz**

Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.6612E-02 at Elt/GP 1971/11  
 MIN -0.6615E-02 at Elt/GP 1383/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 36.00  
 Max 0.6612E-02 at Node 381  
 Min -0.6615E-02 at Node 392



Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 1  
 Loadcase 1  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.4885E-02 at Elt/GP 303/1  
 MIN -0.8505E-02 at Elt/GP 850/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 37.00  
 Max 0.4885E-02 at Node 156  
 Min -0.5304E-02 at Node 419



**Figura A.2.1.62 – Perfis transversais - Abertura para os garfos - Diagrama My e Mz**

## Caso de carga 2

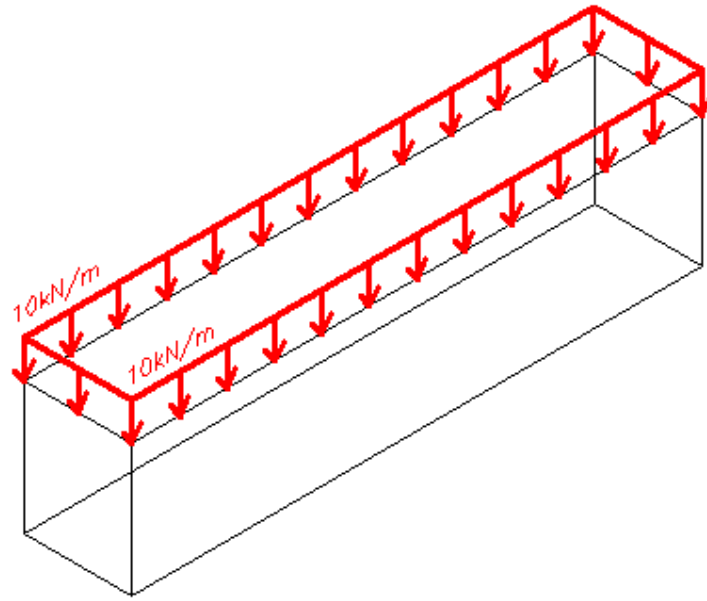


Figura A.2.1.63 - Caso de carga 2

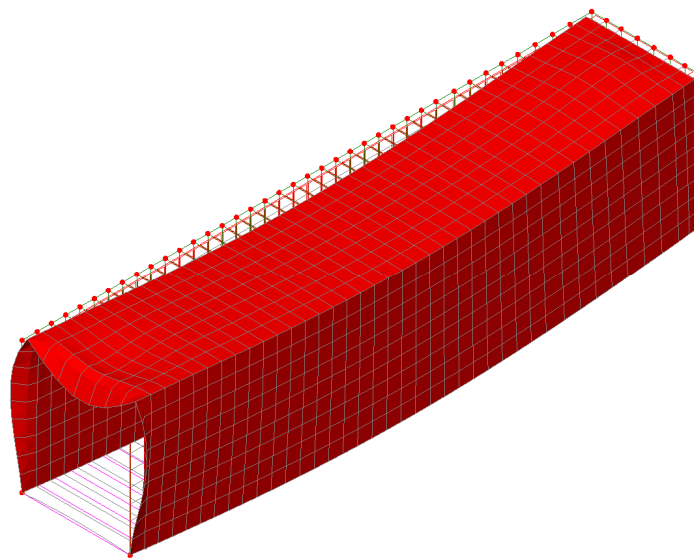
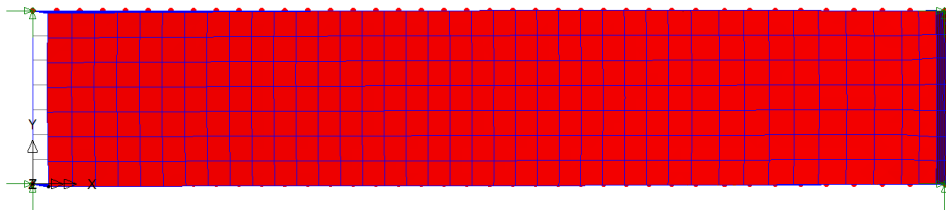
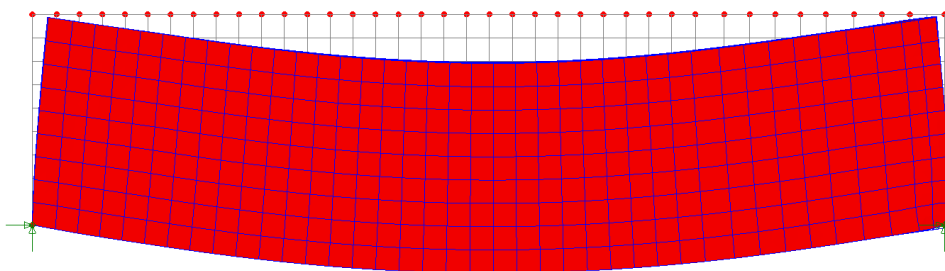


Figura A.2.1.64 – Vista geral da deformada

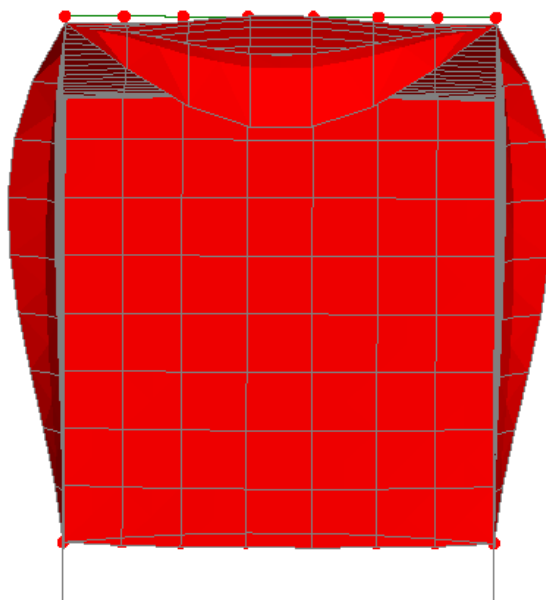
Deslocamento máximo: 11,2 mm.



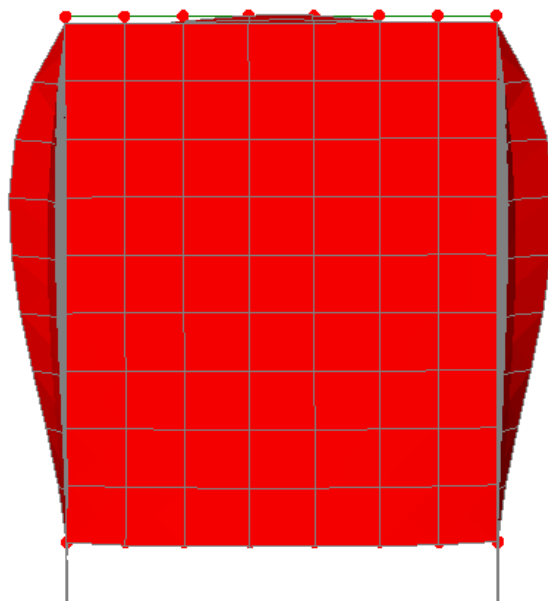
**Figura A.2.1.65 – Vista da cobertura deformada**



**Figura A.2.1.66 – Vista da face lateral deformada**



**Figura A.2.1.67 – Vista da face da porta deformada**

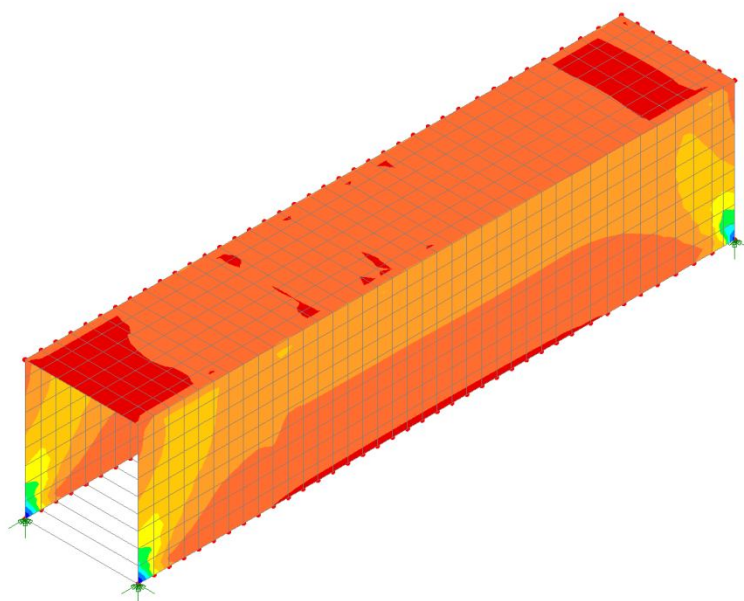


**Figura A.2.1.68 – Vista da face frontal deformada**

Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: Nx

Blue	-378,007
Light Blue	-330,756
Cyan	-283,505
Green	-236,255
Yellow-Green	-189,004
Yellow	-141,753
Orange	-94,5018
Red-Orange	-47,2509
Red	0,0

Max 27,5859 at Node 207  
 Min -397,672 at Node 12



**Figura A.2.1.69 – Vista geral – Esforço Nx**

Loadcase: 2  
Title: Loadcase 2  
Results File: 0  
Entity: Stress  
Component: Ny  
-651,821  
-558,704  
-465,587  
-372,469  
-279,352  
-186,235  
-93,1174  
0,0  
93,1174  
Max 185,34 at Node 1137  
Min -652,716 at Node 12

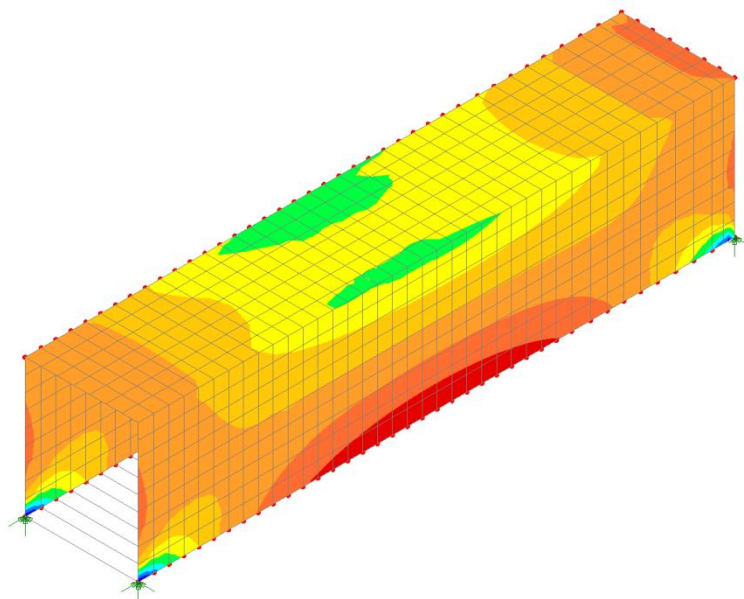


Figura A.2.1.70 – Vista geral – Esforço Ny

Loadcase: 2  
Title: Loadcase 2  
Results File: 0  
Entity: Stress  
Component: Nxy  
-460,426  
-368,34  
-276,255  
-184,17  
-92,0851  
0,0  
92,0851  
184,17  
276,255  
Max 362,842 at Node 1931  
Min -465,924 at Node 12

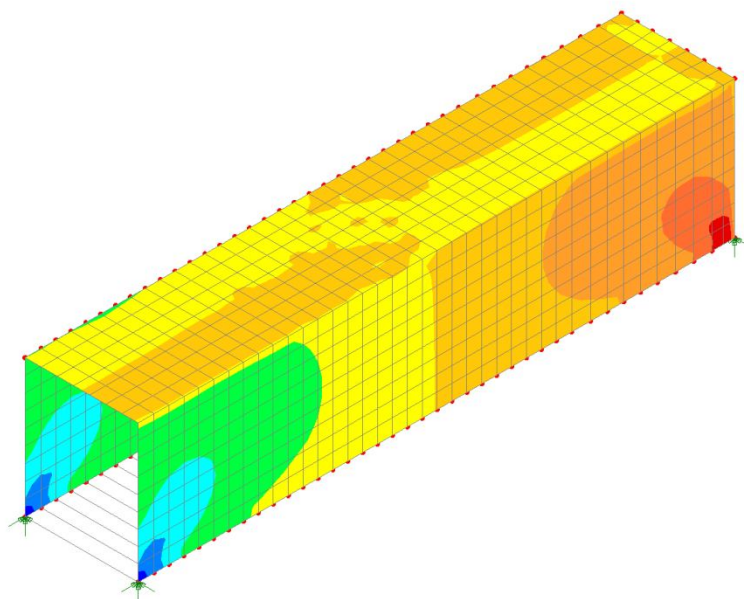
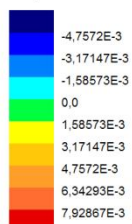
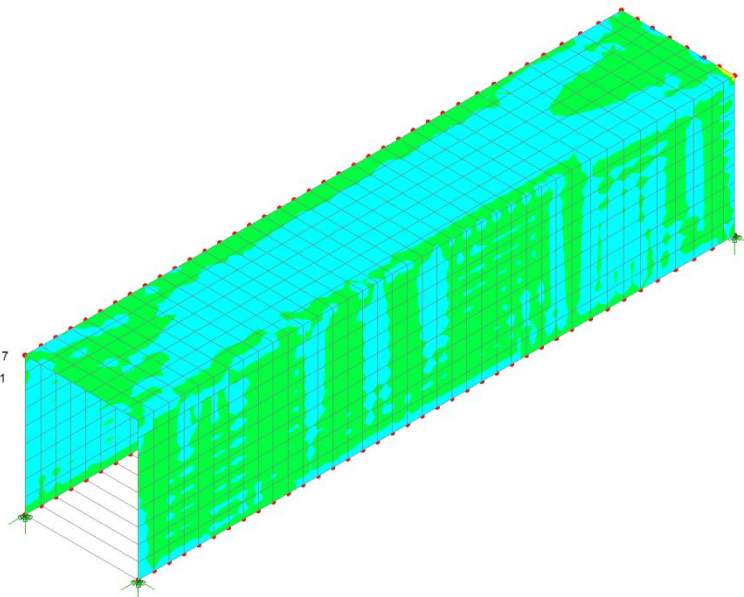


Figura A.2.1.71 – Vista geral – Esforço Nz

Loadcase: 2  
Title: Loadcase 2  
Results File: 0  
Entity: Stress  
Component: Mx

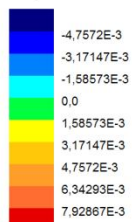


Max 8,29514E-3 at Node 2117  
Min -5,97646E-3 at Node 2201

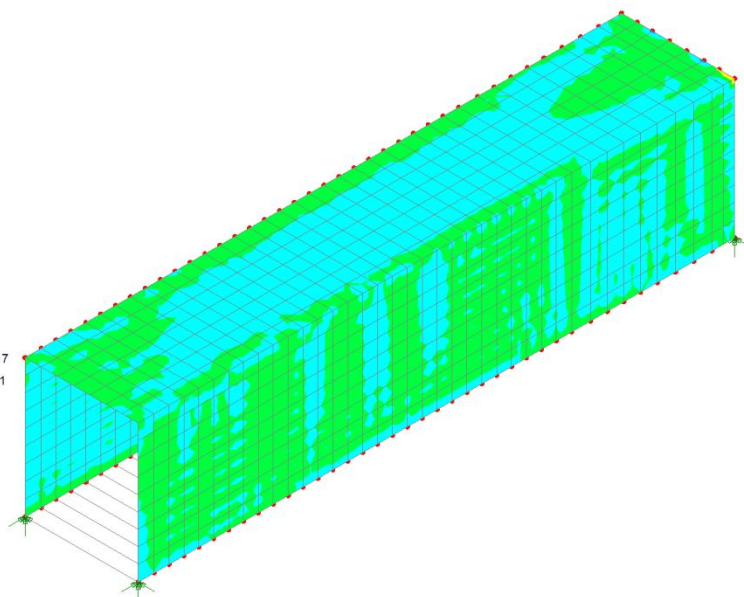


**Figura A.2.1.72 – Vista geral – Esforço Mx**

Loadcase: 2  
Title: Loadcase 2  
Results File: 0  
Entity: Stress  
Component: Mx

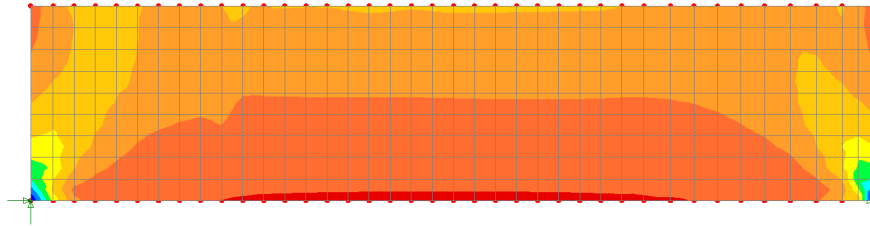


Max 8,29514E-3 at Node 2117  
Min -5,97646E-3 at Node 2201



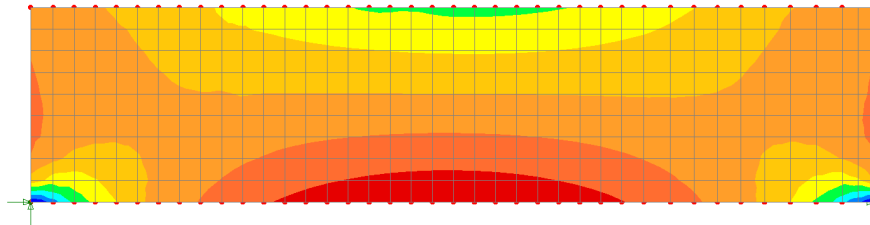
**Figura A.2.1.73 – Vista geral – Esforço My**

Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: Nx  
 -390,885  
 -342,024  
 -293,164  
 -244,303  
 -195,442  
 -146,582  
 -97,7212  
 -48,8606  
 0,0  
 Max 8,51953 at Node 1137  
 Min -431,226 at Node 160



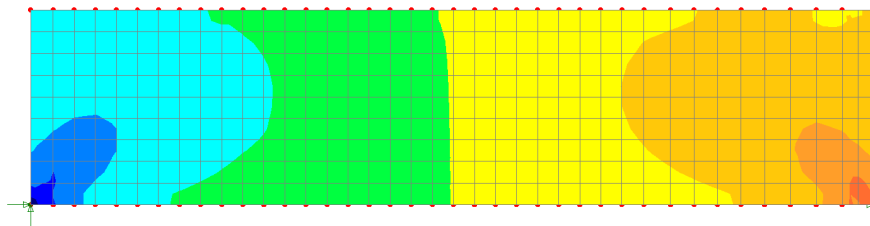
**Figura A.2.1.74 – Face lateral - Esforço Nx**

Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -663,878  
 -569,038  
 -474,199  
 -379,359  
 -284,519  
 -189,679  
 -94,8397  
 0,0  
 94,8397  
 Max 185,34 at Node 1137  
 Min -668,217 at Node 160



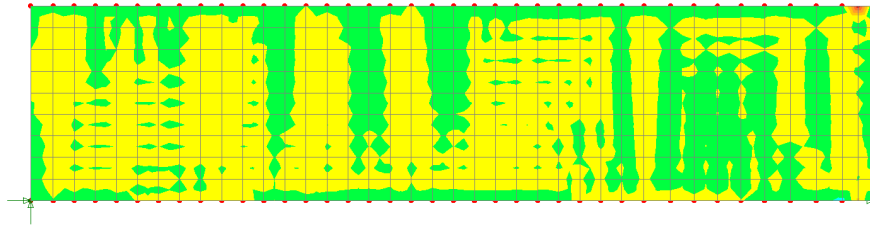
**Figura A.2.1.75 – Face lateral - Esforço Ny**

Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -410,47  
 -307,853  
 -205,235  
 -102,618  
 -0,0284217E-12  
 102,618  
 205,235  
 307,853  
 410,47  
 Max 457,634 at Node 160  
 Min -465,924 at Node 12



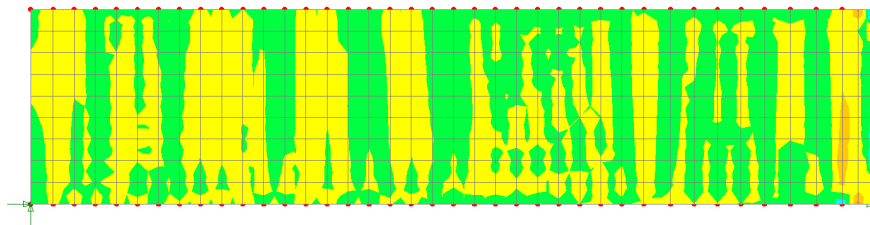
**Figura A.2.1.76 – Face lateral - Esforço Nxy**

Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -0,97758E-3  
 -0,733185E-3  
 -0,48879E-3  
 -0,244395E-3  
 -0,10842E-18  
 0,244395E-3  
 0,48879E-3  
 0,733185E-3  
 0,97758E-3  
 Max 1,14018E-3 at Node 1925  
 Min -1,05939E-3 at Node 53



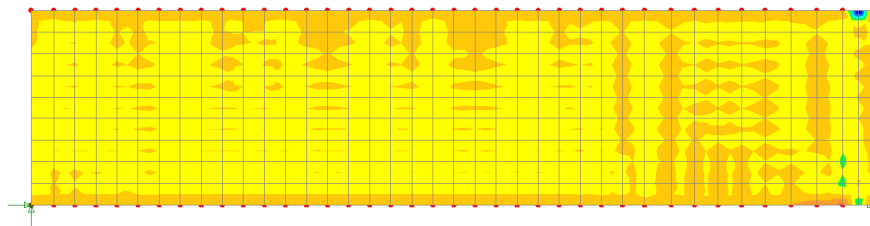
**Figura A.2.1.77 – Face lateral 1 - Esforço Mx**

Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: My  
 -1,21628E-3  
 -0,912209E-3  
 -0,608139E-3  
 -0,30407E-3  
 0,10842E-18  
 0,30407E-3  
 0,608139E-3  
 0,912209E-3  
 1,21628E-3  
 Max 1,34205E-3 at Node 294  
 Min -1,39457E-3 at Node 296



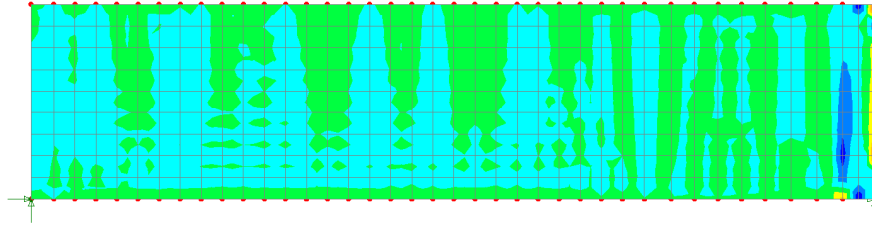
**Figura A.2.1.78 – Face lateral 1 - Esforço My**

Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -0,888153E-3  
 -0,710522E-3  
 -0,532892E-3  
 -0,355261E-3  
 -0,177631E-3  
 0,0  
 0,177631E-3  
 0,355261E-3  
 0,532892E-3  
 Max 0,539284E-3 at Node 294  
 Min -1,05939E-3 at Node 53



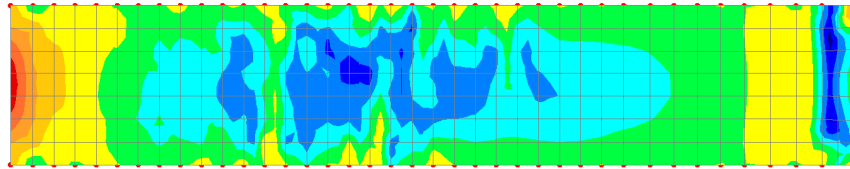
**Figura A.2.1.79 – Face lateral 2 - Esforço Mx**

Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: My  
 -0,690912E-3  
 -0,460608E-3  
 -0,230304E-3  
 0,0  
 0,230304E-3  
 0,460608E-3  
 0,690912E-3  
 0,921216E-3  
 1,15152E-3  
 Max 1,34205E-3 at Node 294  
 Min -0,730684E-3 at Node 379



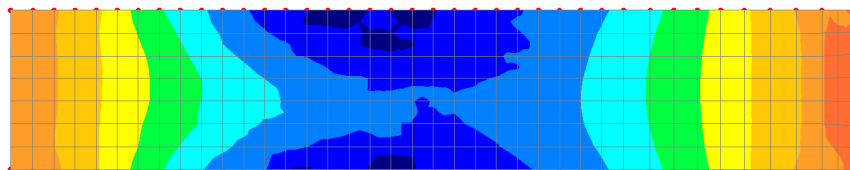
**Figura A.2.1.80 – Face lateral 2 - Esforço My**

Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: Nx  
 -22,7477  
 -17,0608  
 -11,3739  
 -5,68693  
 1,77636E-15  
 5,68693  
 11,3739  
 17,0608  
 22,7477  
 Max 27,5859 at Node 207  
 Min -23,5965 at Node 2108



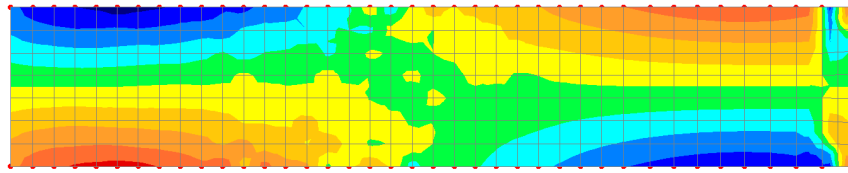
**Figura A.2.1.81 – Cobertura - Esforço Nx**

Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -305,401  
 -261,773  
 -218,144  
 -174,515  
 -130,886  
 -87,2576  
 -43,6288  
 0,0  
 43,6288  
 Max 44,2977 at Node 2051  
 Min -348,361 at Node 1038



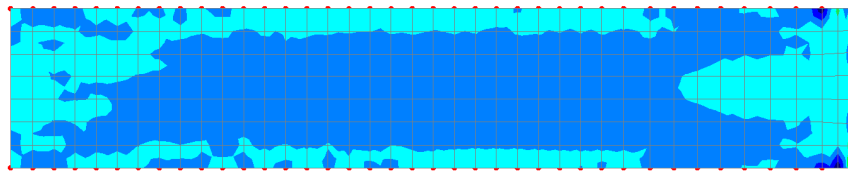
**Figura A.2.1.82 – Cobertura - Esforço Ny**

Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
  
 -78,4535  
 -58,8401  
 -39,2267  
 -19,6134  
 0,0  
 19,6134  
 39,2267  
 58,8401  
 78,4535  
  
 Max 86,5972 at Node 164  
 Min -89,9231 at Node 162



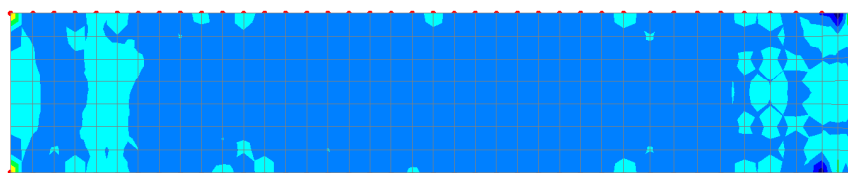
**Figura A.2.1.83 – Cobertura - Esforço Nxy**

Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
  
 -2,52289E-3  
 -1,26144E-3  
 0,0  
 1,26144E-3  
 2,52289E-3  
 3,78433E-3  
 5,04577E-3  
 6,30722E-3  
 7,56866E-3  
  
 Max 7,67997E-3 at Node 296  
 Min -3,67302E-3 at Node 1925

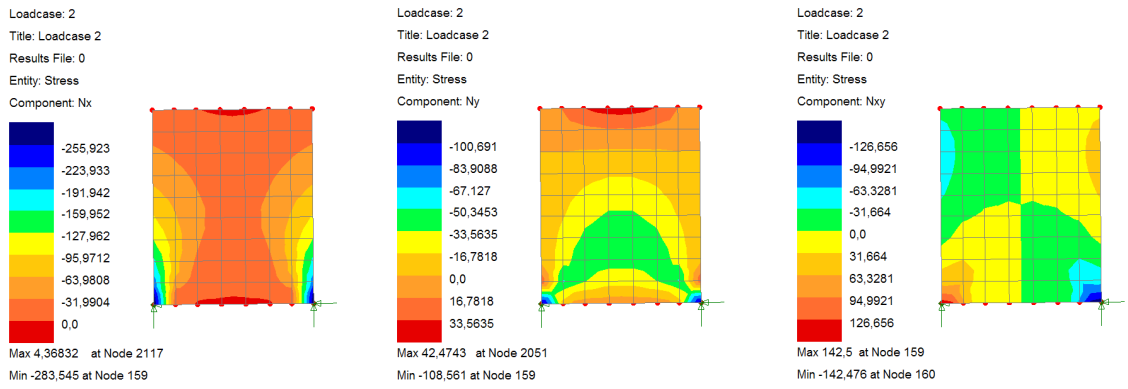


**Figura A.2.1.84 – Cobertura - Esforço Mx**

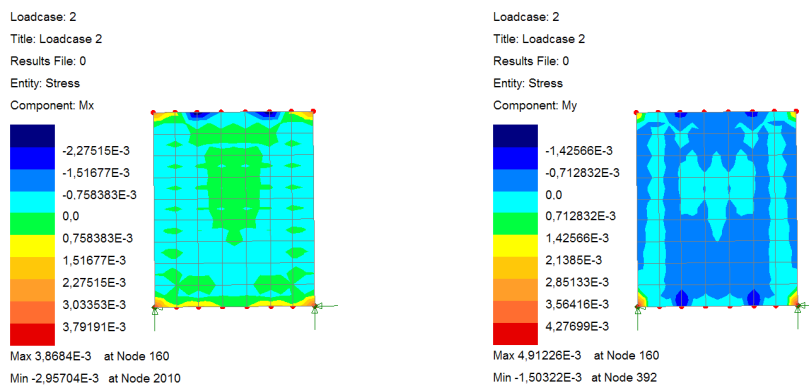
Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: My  
  
 -1,94116E-3  
 -0,97058E-3  
 0,0  
 0,97058E-3  
 1,94116E-3  
 2,91174E-3  
 3,88232E-3  
 4,8529E-3  
 5,82348E-3  
  
 Max 6,01149E-3 at Node 294  
 Min -2,72373E-3 at Node 53



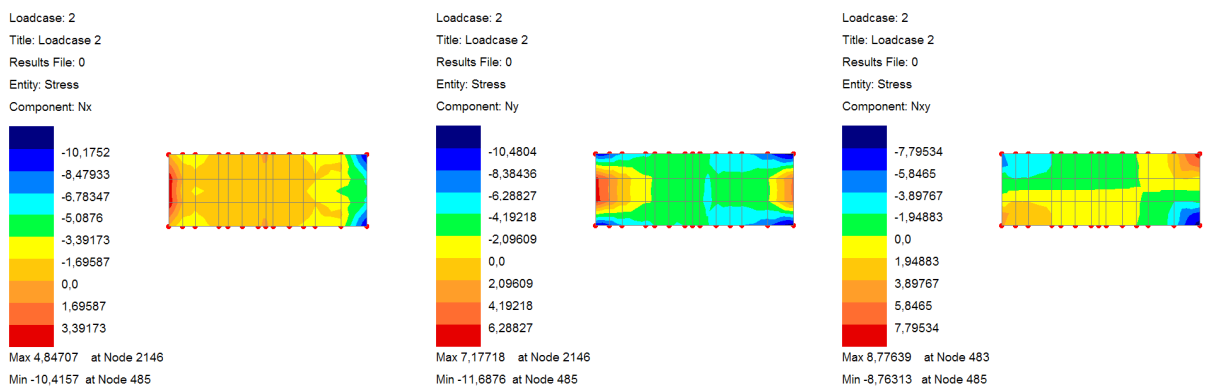
**Figura A.2.1.85 – Cobertura - Esforço My**



**Figura A.2.1.86 – Face frontal - Esforços Nx, Ny e Nxy**

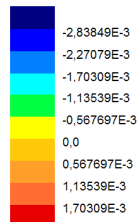


**Figura A.2.1.87 – Face frontal - Esforço Mx e My**

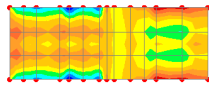


**Figura A.2.1.88 – Abertura para os garfos – FP - Esforço Nx, Ny e Nxy**

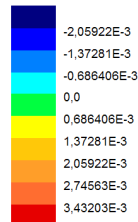
Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: Mx



Max 2,21065E-3 at Node 473  
 Min -2,89862E-3 at Node 403



Loadcase: 2  
 Title: Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Component: My



Max 3,824E-3 at Node 433  
 Min -2,35365E-3 at Node 409

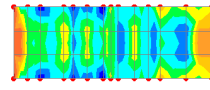


Figura A.2.1.89 – Abertura para os garfos - FP - Esforço Mx e My

Scale=1:64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 128.7 at Elt/GP 412/1  
 MIN -459.4 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 5.000  
 Max 128.6 at Node 106  
 Min -414.0 at Node 4

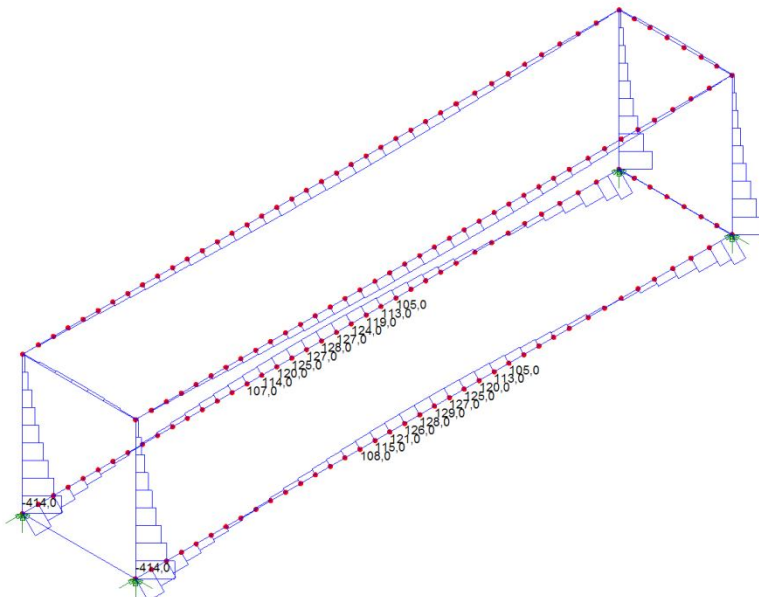
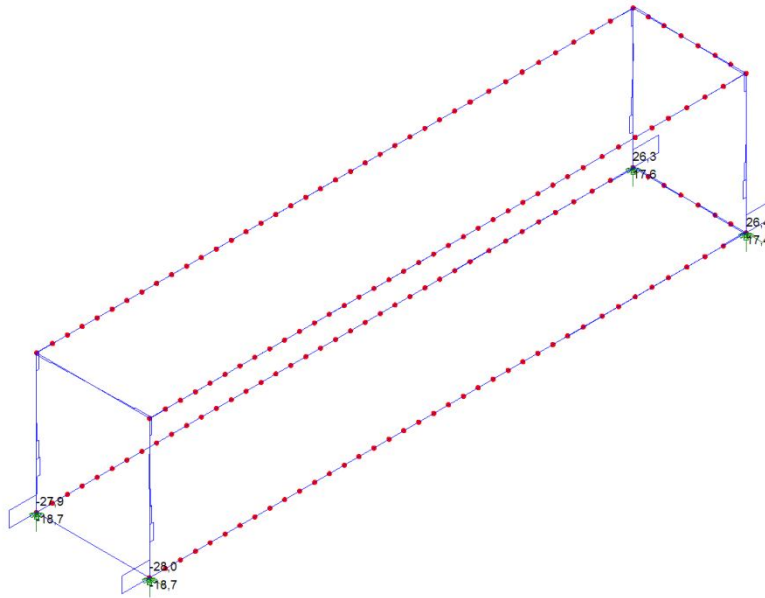


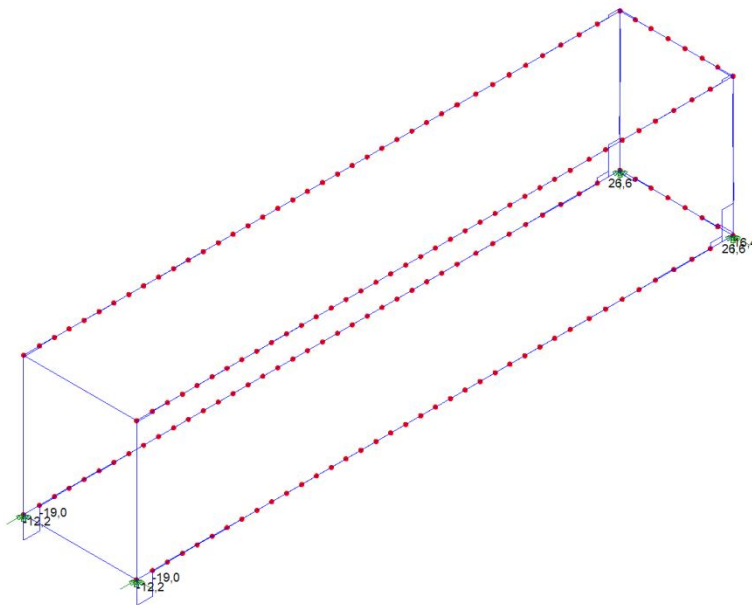
Figura A.2.1.90 – Vista geral - Diagrama Fx

Scale=1:64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 52.49 at Elt/GP 61/1  
 MIN -56.22 at Elt/GP 73/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fy  
 Peak Range(%): 25.00  
 Max 26.39 at Node 440  
 Min -27.99 at Node 255



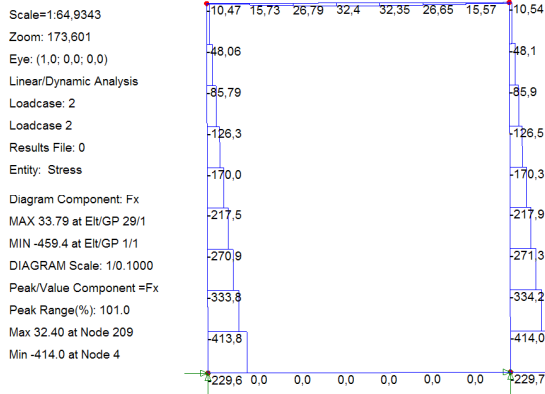
**Figura A.2.1.91 – Vista geral - Diagrama Fy**

Scale=1:64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 45.38 at Elt/GP 731/1  
 MIN -36.58 at Elt/GP 20/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fz  
 Peak Range(%): 25.00  
 Max 26.62 at Node 1930  
 Min -18.98 at Node 37

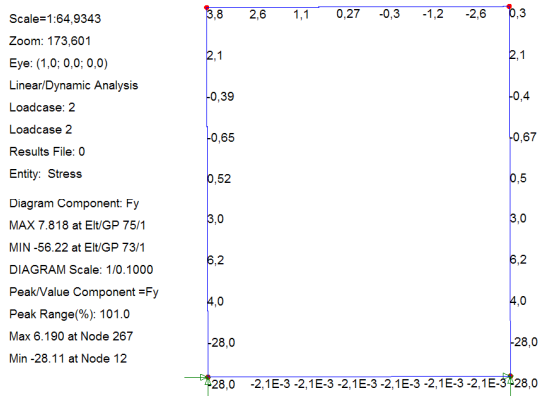


**Figura A.2.1.92 – Vista geral - Diagrama Fz**

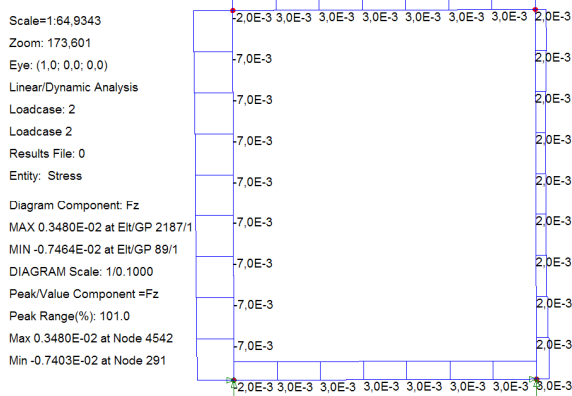




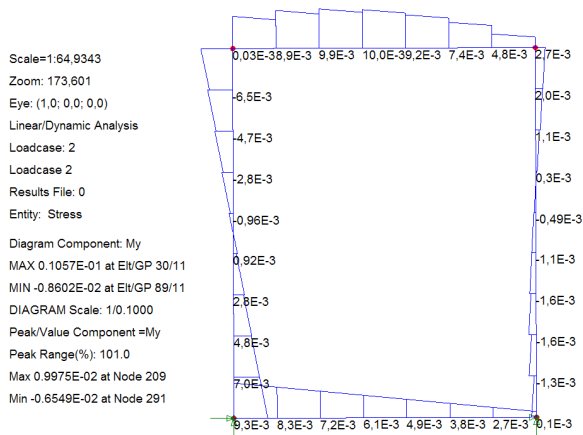
**Figura A.2.1.95 – Face da porta - Diagrama Fx**



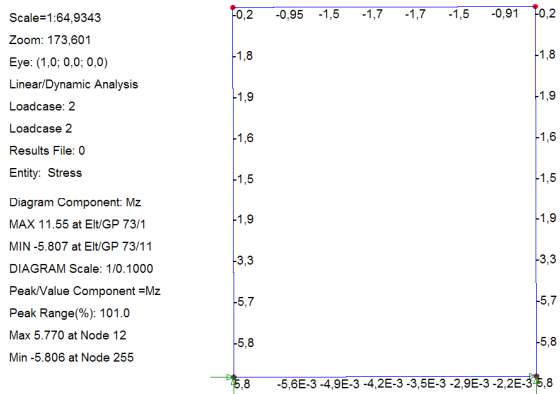
**Figura A.2.1.96 – Face da porta - Diagrama Fy**



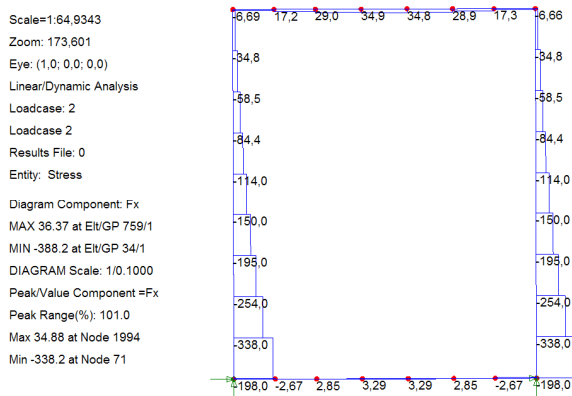
**Figura A.2.1.97 – Face da porta - Diagrama Fz**



**Figura A.2.1.98 – Face da porta - Diagrama My**

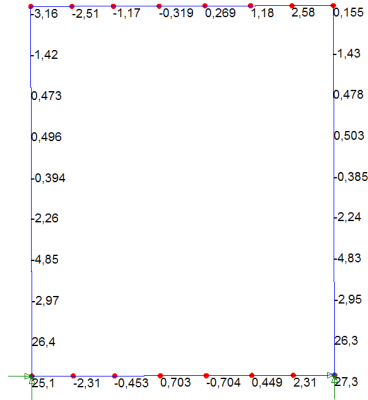


**Figura A.2.1.98 – Face da porta - Diagrama Mz**



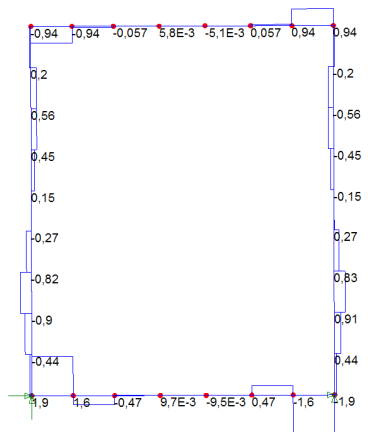
**Figura A.2.1.99 – Face frontal - Diagrama Fx**

Scale=1:64,9343  
 Zoom: 173,601  
 Eye: (1,0,0,0,0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 52.49 at Elt/GP 61/1  
 MIN -6.218 at Elt/GP 118/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 101.0  
 Max 27.34 at Node 159  
 Min -4.854 at Node 1902



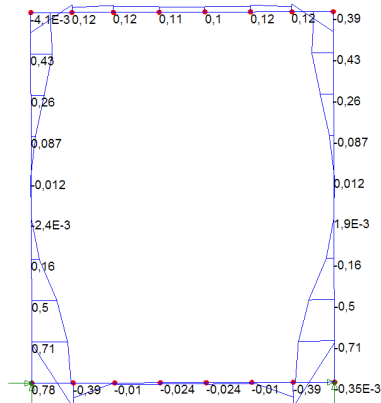
**Figura A.2.1.100 – Face frontal - Diagrama Fy**

Scale=1:64,9343  
 Zoom: 173,601  
 Eye: (1,0,0,0,0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 4.059 at Elt/GP 1980/1  
 MIN -4.080 at Elt/GP 2166/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 101.0  
 Max 1.929 at Node 160  
 Min -1.929 at Node 159

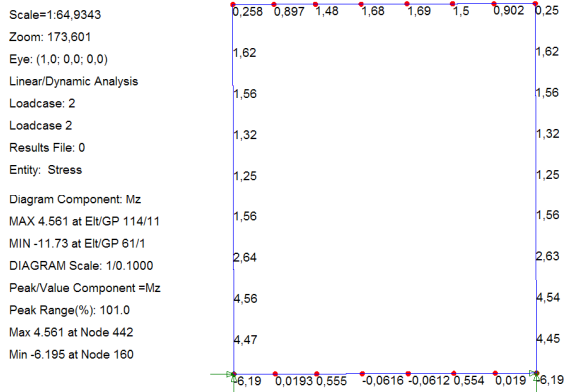


**Figura A.2.1.101 – Face frontal - Diagrama Fz**

Scale=1:64,9343  
 Zoom: 173,601  
 Eye: (1,0,0,0,0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.7772 at Elt/GP 61/1  
 MIN -0.7776 at Elt/GP 34/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 101.0  
 Max 0.7770 at Node 160  
 Min -0.7134 at Node 71



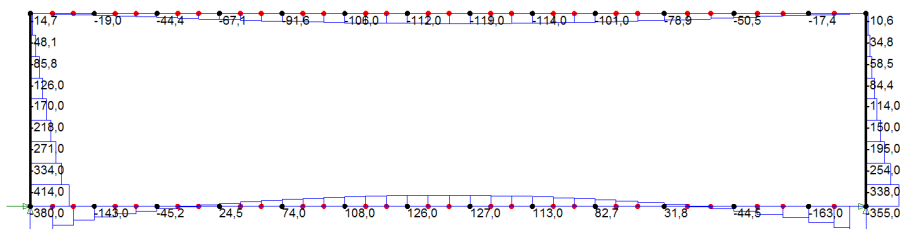
**Figura A.2.1.102 – Face frontal - Diagrama My**



**Figura A.2.1.102 – Face frontal - Diagrama Mz**

Scale=1.64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress

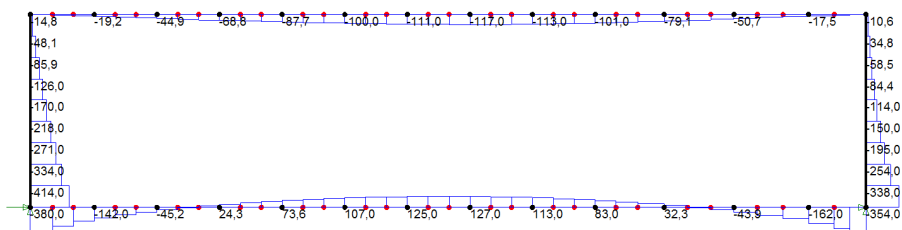
Diagram Component: Fx  
 MAX 128.7 at Elt/GP 412/1  
 MIN -459.2 at Elt/GP 73/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 40.00  
 Max 128.6 at Node 106  
 Min -413.8 at Node 255



**Figura A.2.1.103 – Face lateral 1 – Diagrama Fx**

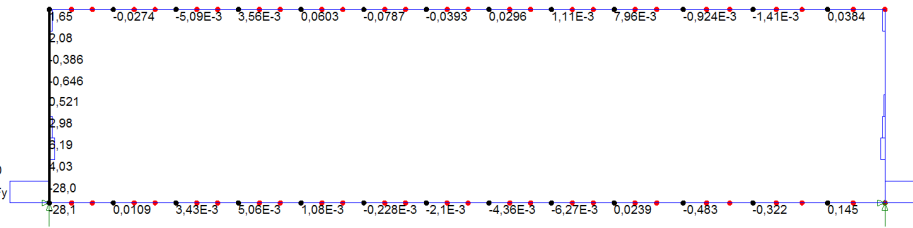
Scale=1.64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress

Diagram Component: Fx  
 MAX 127.9 at Elt/GP 405/1  
 MIN -459.4 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 40.00  
 Max 127.8 at Node 105  
 Min -414.0 at Node 4



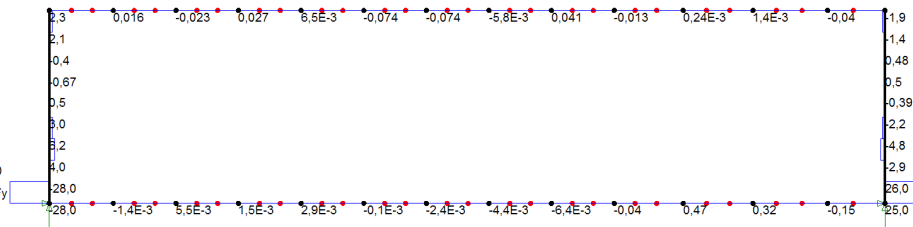
**Figura A.2.1.104 – Face lateral 2 – Diagrama Fx**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 52.49 at Elt/GP 61/1  
 MIN -56.22 at Elt/GP 73/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 40.00  
 Max 27.25 at Node 160  
 Min -28.11 at Node 12



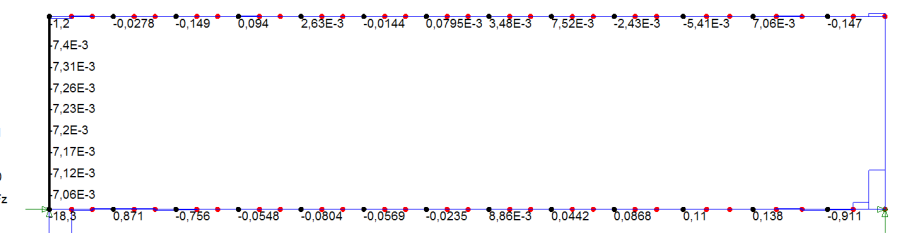
**Figura A.2.1.105 – Face lateral 1 – Diagrama Fy**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 52.37 at Elt/GP 34/1  
 MIN -56.08 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 40.00  
 Max 26.33 at Node 71  
 Min -28.03 at Node 1



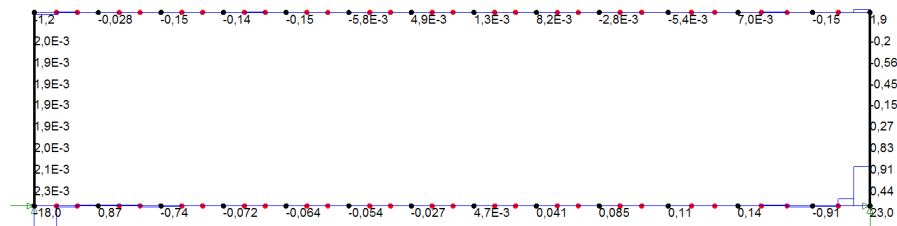
**Figura A.2.1.106 – Face lateral 2 – Diagrama Fy**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 45.38 at Elt/GP 731/1  
 MIN -36.58 at Elt/GP 20/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 40.00  
 Max 26.62 at Node 1930  
 Min -18.98 at Node 37



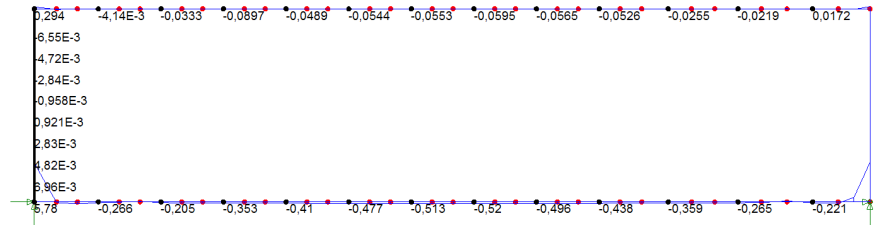
**Figura A.2.1.107 – Face lateral 1 – Diagrama Fz**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 45.33 at EIt/GP 46/1  
 MIN -36.54 at EIt/GP 7/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fz  
 Peak Range(%): 40,00  
 Max 26,59 at Node 379  
 Min -18,96 at Node 26



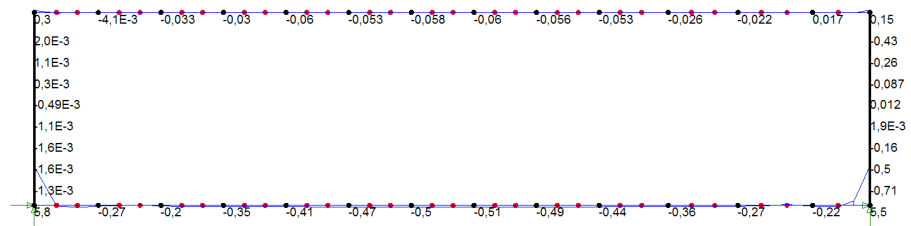
**Figura A.2.1.108 – Face lateral 2 – Diagrama Fz**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 11,72 at EIt/GP 731/11  
 MIN -0,6097 at EIt/GP 70/11  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =My  
 Peak Range(%): 40,00  
 Max 6,248 at Node 160  
 Min -0,6096 at Node 52



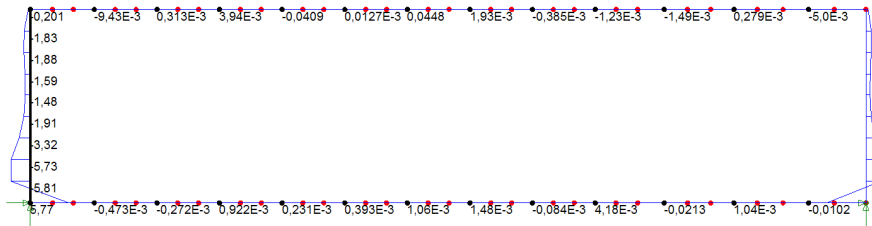
**Figura A.2.1.109 – Face lateral 1 – Diagrama My**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 11,70 at EIt/GP 46/11  
 MIN -0,7776 at EIt/GP 34/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =My  
 Peak Range(%): 40,00  
 Max 5,764 at Node 1  
 Min -0,7134 at Node 71



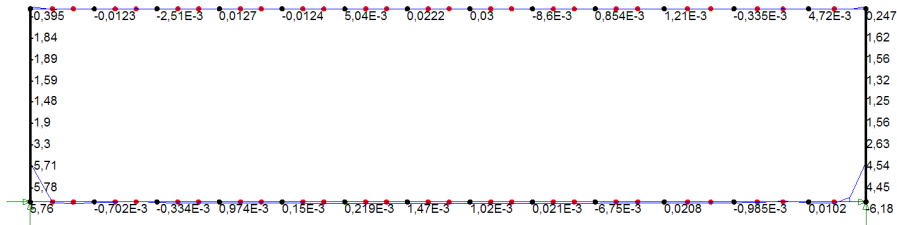
**Figura A.2.1.110 – Face lateral 2 – Diagrama My**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 11.55 at Elt/GP 73/1  
 MIN -11.73 at Elt/GP 61/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 40,00  
 Max 5,774 at Node 12  
 Min -5,806 at Node 255



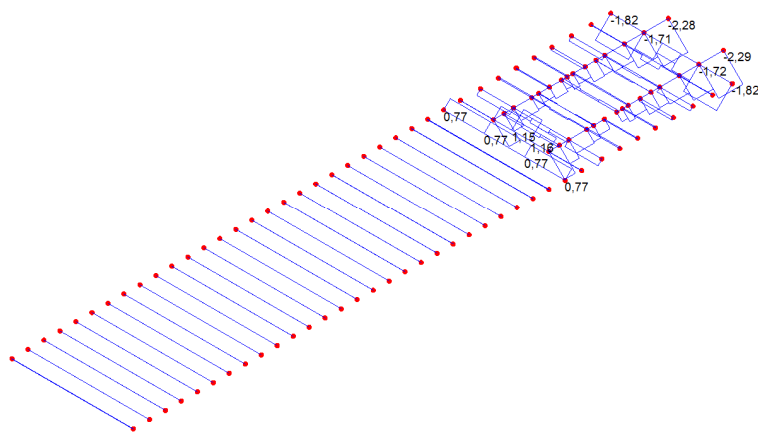
**Figura A.2.1.111 – Face lateral 1 – Diagrama Mz**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 11,70 at Elt/GP 46/11  
 MIN -0,7776 at Elt/GP 34/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 40,00  
 Max 5,762 at Node 1  
 Min -6,182 at Node 159



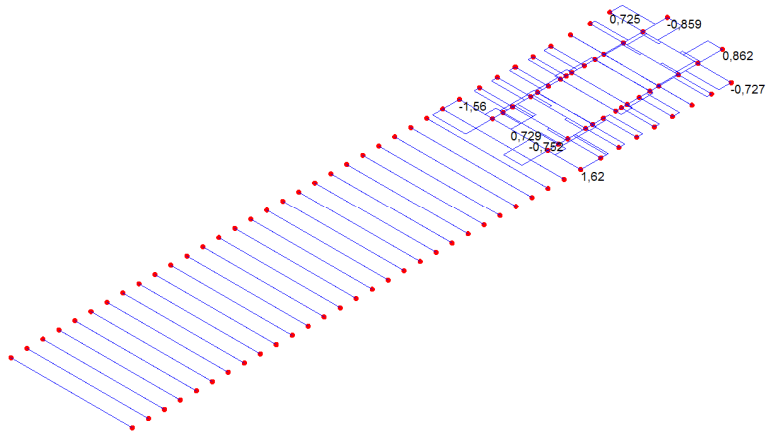
**Figura A.2.1.112 – Face lateral 2 – Diagrama Mz**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 1,402 at Elt/GP 817/1  
 MIN -2,294 at Elt/GP 1383/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fx  
 Peak Range(%): 20,00  
 Max 1,156 at Node 2146  
 Min -2,294 at Node 392



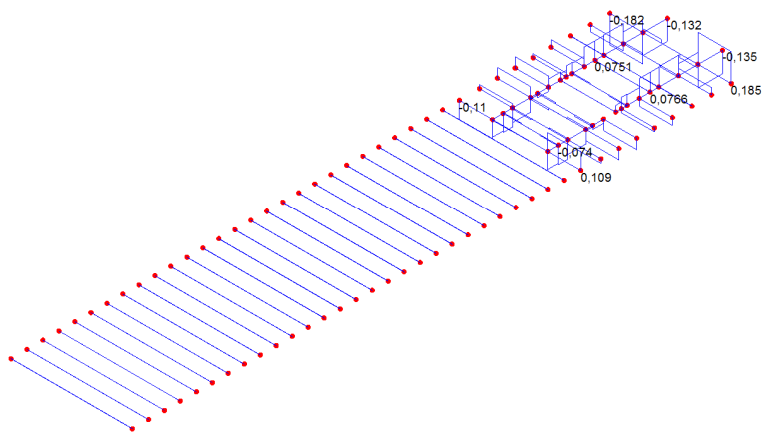
**Figura A.2.1.113 – Estrutura da base – Diagrama Fx**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 1.616 at EIt/GP 306/1  
 MIN -1.563 at EIt/GP 305/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 30.00  
 Max 1.616 at Node 133  
 Min -1.563 at Node 132



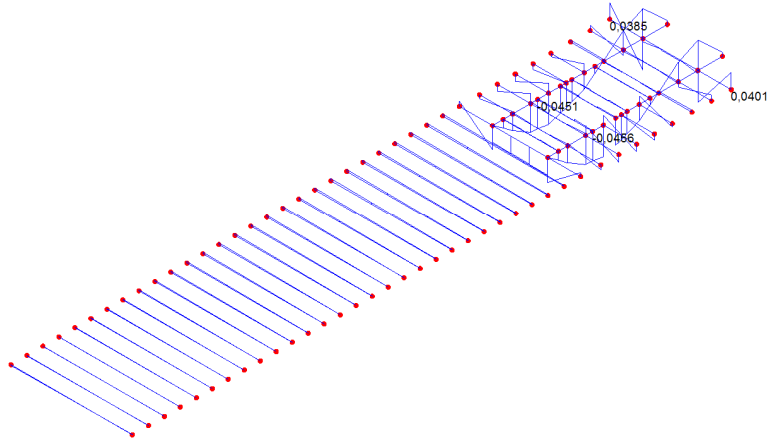
**Figura A.2.1.114 – Estrutura da base – Diagrama Fy**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1848 at EIt/GP 304/1  
 MIN -0.1822 at EIt/GP 303/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 30.00  
 Max 0.1848 at Node 157  
 Min -0.1822 at Node 156



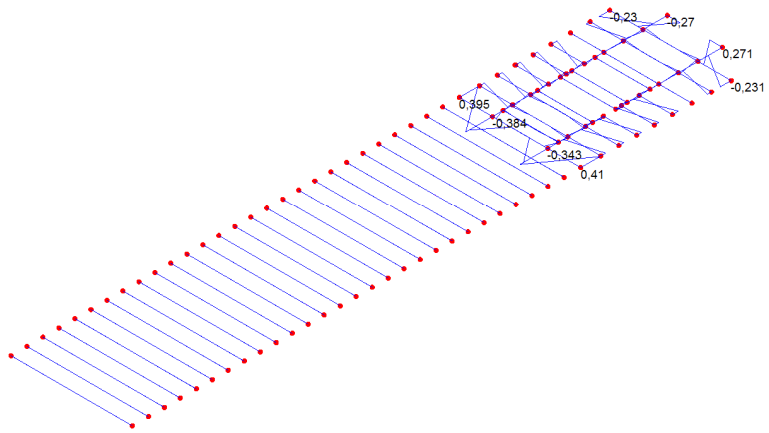
**Figura A.2.1.115 – Estrutura da base – Diagrama Fz**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.7095E-01 at EIt/GP 1383/1  
 MIN -0.7475E-01 at EIt/GP 303/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 5.000  
 Max 0.4011E-01 at Node 157  
 Min -0.4563E-01 at Node 404



**Figura A.2.1.116 – Estrutura da base – Diagrama My**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.4103 at EIt/GP 306/11  
 MIN -0.5941 at EIt/GP 306/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 25.00  
 Max 0.4103 at Node 133  
 Min -0.3845 at Node 431



**Figura A.2.1.117 – Estrutura da base – Diagrama Mz**

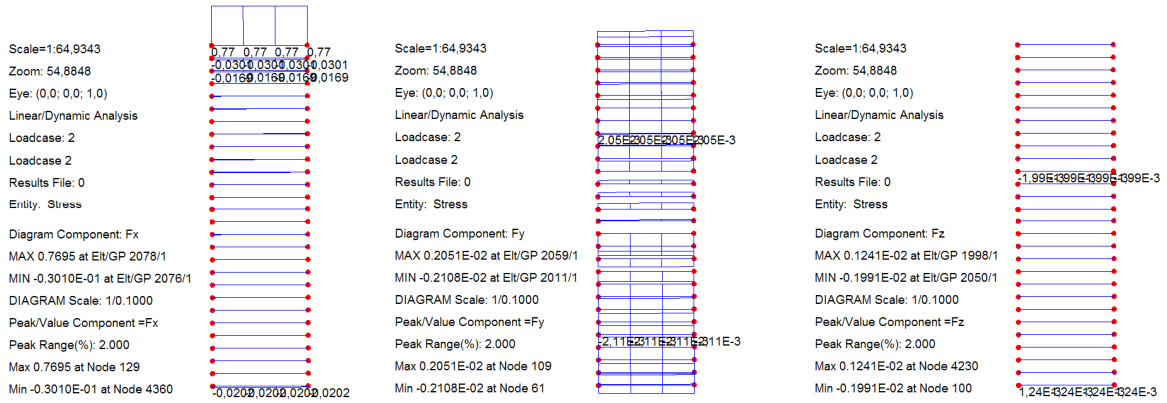


Figura A.2.1.118 – Perfis transversais – Diagrama Fx, Fy e Fz

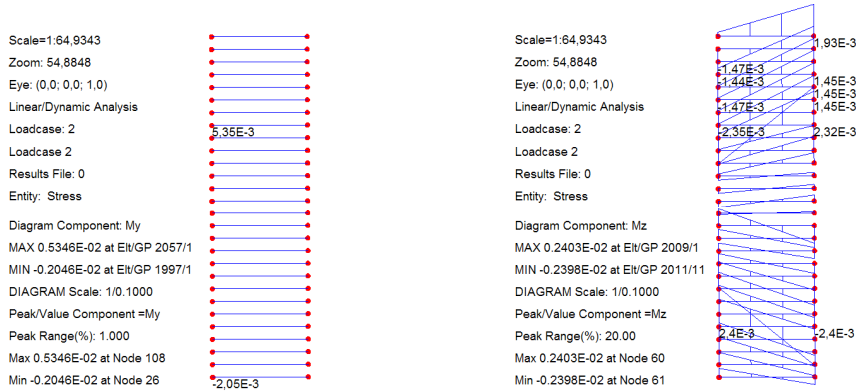


Figura A.2.1.119 – Perfis transversais – Diagrama My e Mz

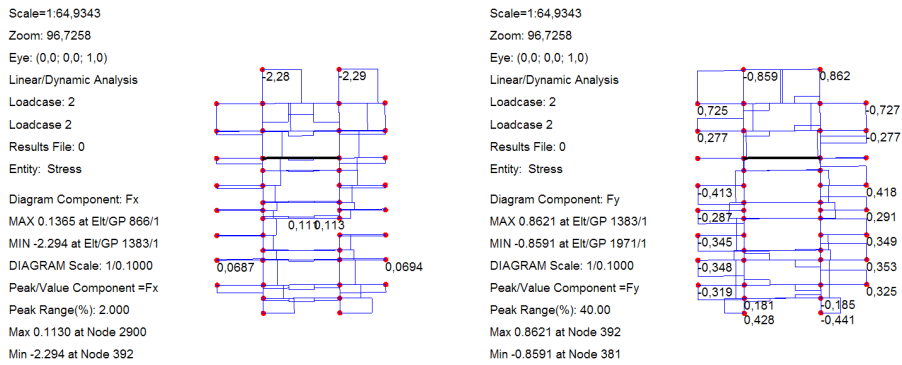


Figura A.2.1.120 – Abertura para os garfos - Perfis transversais – Diagrama Fx e Fy

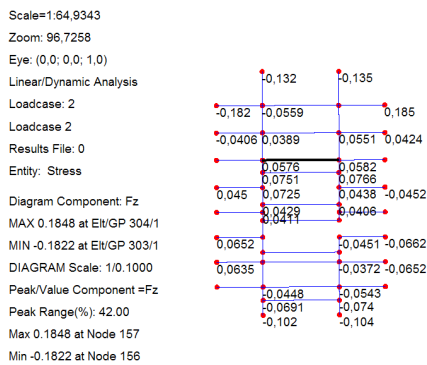
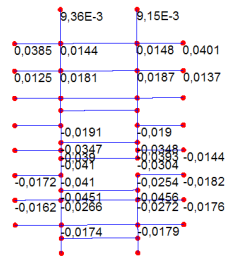


Figura A.2.1.121 – Abertura para os garfos - Perfis transversais – Diagrama Fz

Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.7095E-01 at Elt/GP 1383/1  
 MIN -0.7475E-01 at Elt/GP 303/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 37.00  
 Max 0.4011E-01 at Node 157  
 Min -0.4563E-01 at Node 404



Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 2  
 Loadcase 2  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.2707 at Elt/GP 1383/11  
 MIN -0.2698 at Elt/GP 1971/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 45.00  
 Max 0.2707 at Node 392  
 Min -0.2698 at Node 381

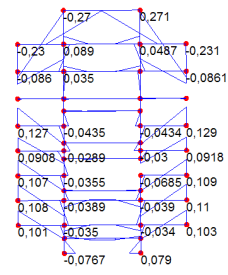


Figura A.2.1.122 – Abertura para os garfos - Perfis transversais – Diagrama My e Mz

### Caso de carga 3

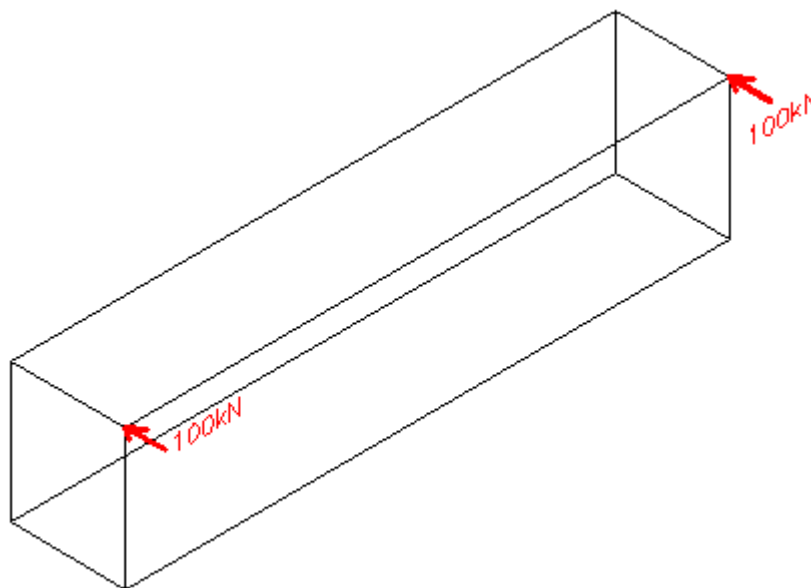


Figura A.2.1.123 - Caso de carga 3

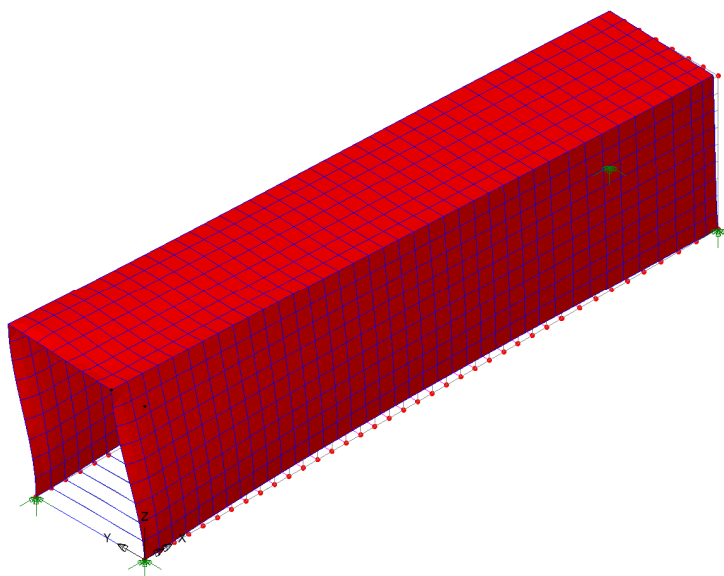
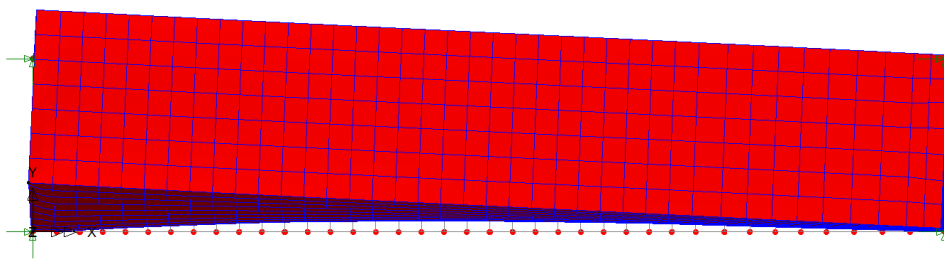
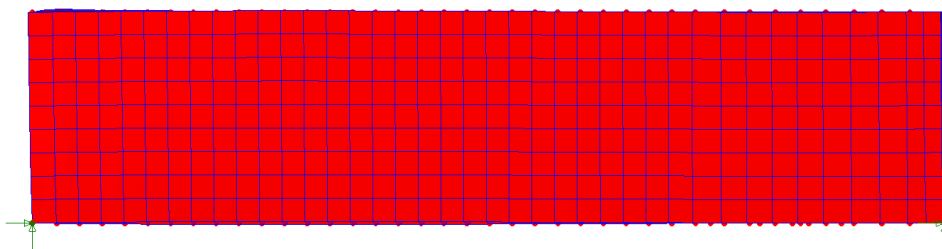


Figura A.2.1.124 - Vista geral da deformada

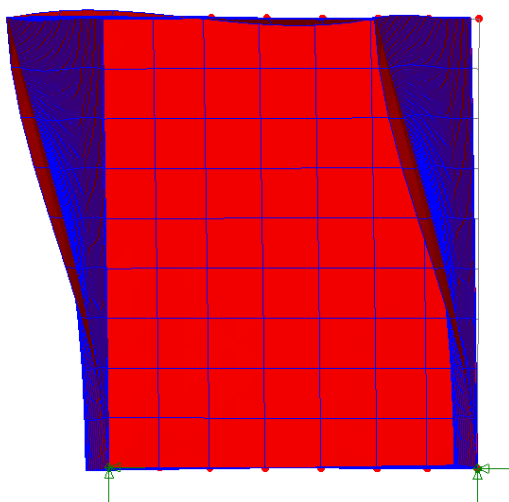
Deslocamento máximo: 26,4 mm



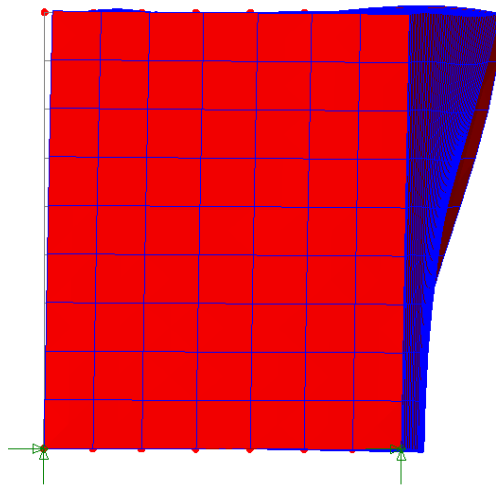
**Figura A.2.1.125 - Vista da cobertura deformada**



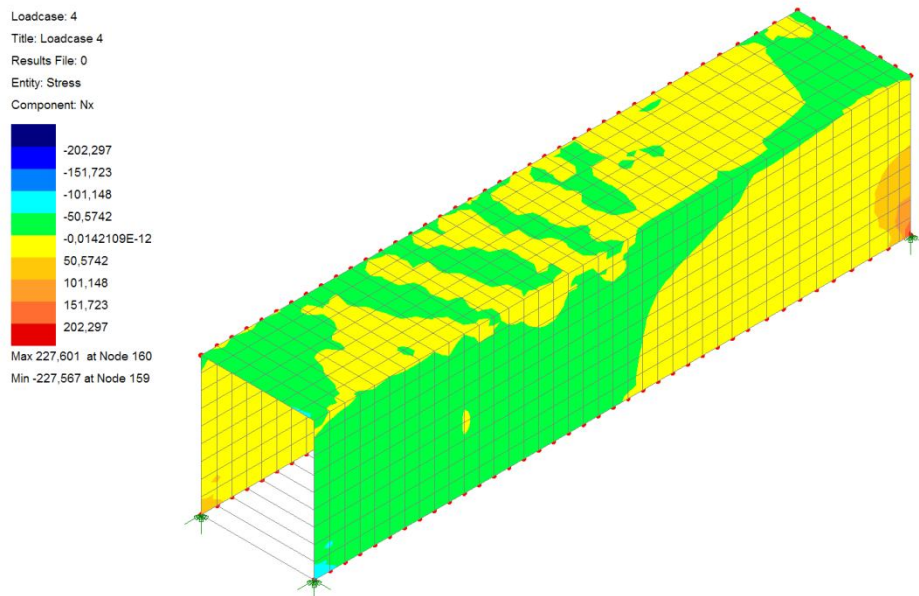
**Figura A.2.1.126 - Vista da face lateral deformada**



**Figura A.2.1.127 - Vista da porta deformada**

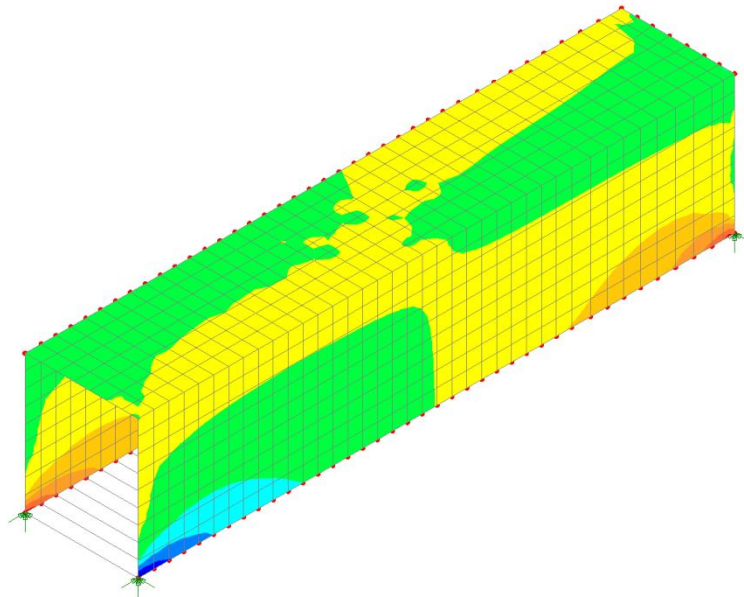


**Figura A.2.1.128 - Vista da face frontal deformada**



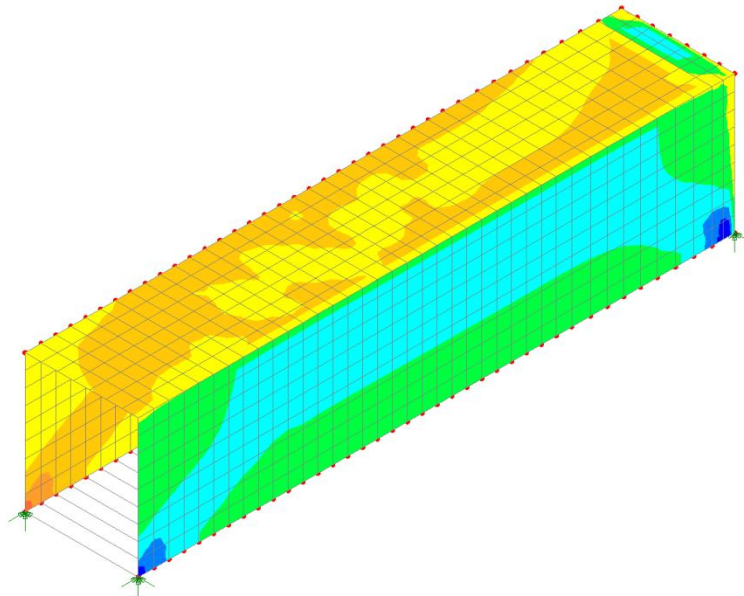
**Figura A.2.1.129 – Vista geral - Esforço Nx**

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -284,659  
 -213,494  
 -142,33  
 -71,1648  
 -0,0284217E-12  
 71,1648  
 142,33  
 213,494  
 284,659  
 Max 320,438 at Node 1931  
 Min -320,044 at Node 380



**Figura A.2.1.130 – Vista geral - Esforço Ny**

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -158,85  
 -119,137  
 -79,425  
 -39,7125  
 0,0142109E-12  
 39,7125  
 79,425  
 119,137  
 158,85  
 Max 196,681 at Node 159  
 Min -160,731 at Node 1931



**Figura A.2.1.131 – Vista geral - Esforço Nxy**

Loadcase: 4  
Title: Loadcase 4  
Results File: 0  
Entity: Stress  
Component: Mx  
-7,83175E-3  
-5,22117E-3  
-2,61058E-3  
0,0  
2,61058E-3  
5,22117E-3  
7,83175E-3  
0,0104423  
0,0130529  
Max 0,0156321 at Node 34  
Min -7,86317E-3 at Node 304

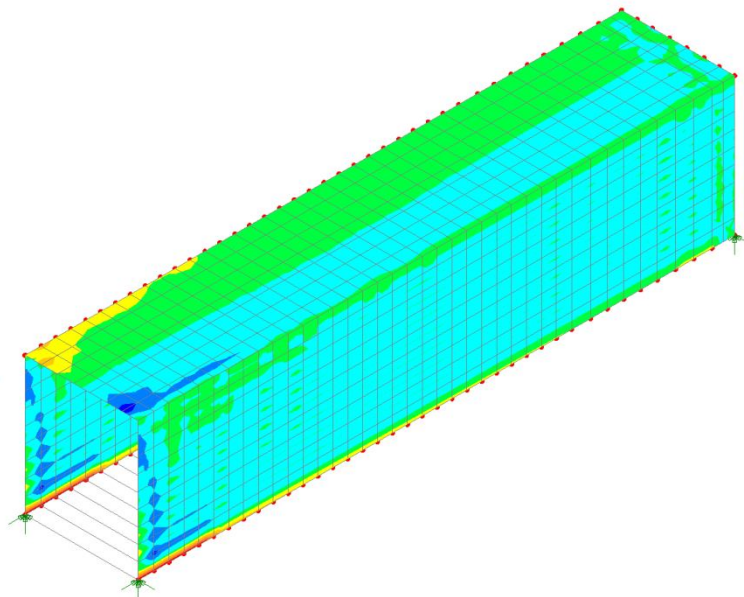


Figura A.2.1.132 – Vista geral - Esforço Mx

Loadcase: 4  
Title: Loadcase 4  
Results File: 0  
Entity: Stress  
Component: My  
-0,0149826  
-0,011237  
-7,4913E-3  
-3,74566E-3  
0,0  
3,74566E-3  
7,4913E-3  
0,011237  
0,0149826  
Max 0,0161059 at Node 255  
Min -0,017605 at Node 291

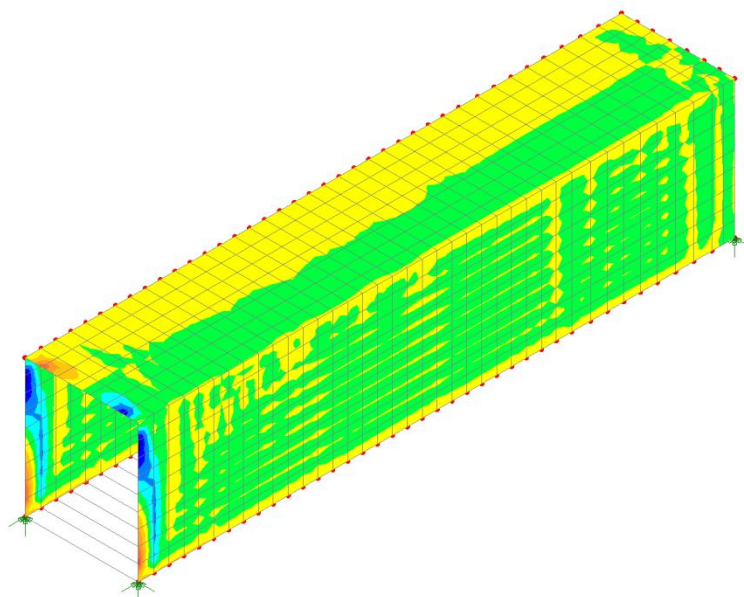
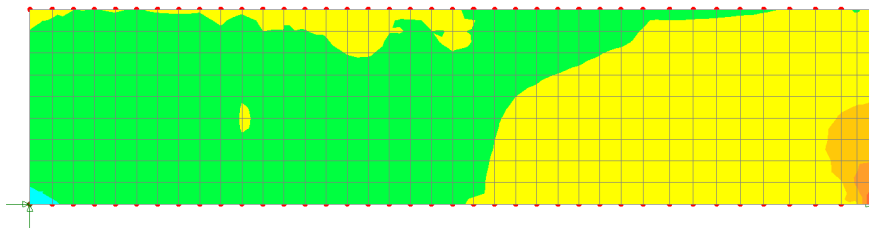


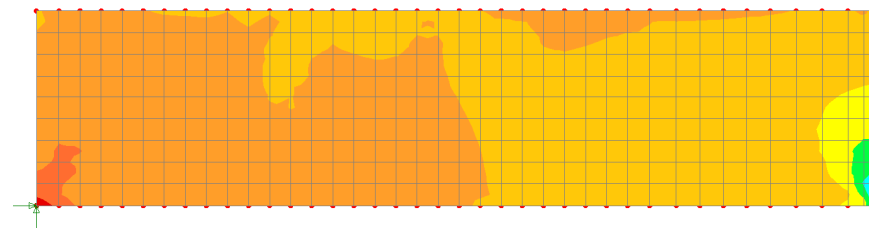
Figura A.2.1.133 – Vista geral - Esforço My

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Nx  
 -221,186  
 -165,89  
 -110,593  
 -55,2965  
 -0,0142109E-12  
 55,2965  
 110,593  
 165,89  
 221,186  
 Max 249,019 at Node 160  
 Min -248,649 at Node 159



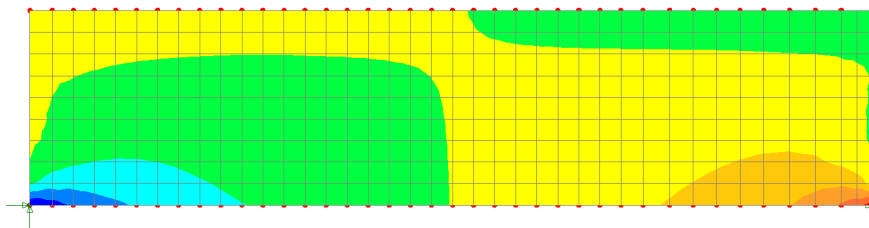
**Figura A.2.1.134 – Face lateral 1 - Esforço Nx**

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Nx  
 -238,372  
 -198,643  
 -158,915  
 -119,186  
 -79,4573  
 -39,7286  
 0,0  
 39,7286  
 79,4573  
 Max 108,909 at Node 1  
 Min -248,649 at Node 159



**Figura A.2.1.135 – Face lateral 2 - Esforço Nx**

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -311,183  
 -233,387  
 -155,592  
 -77,7958  
 0,0  
 77,7958  
 155,592  
 233,387  
 311,183  
 Max 350,275 at Node 160  
 Min -349,887 at Node 159



**Figura A.2.1.136 – Face lateral 1 - Esforço Ny**

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -292,125  
 -219,093  
 -146,062  
 -73,0312  
 0,0  
 73,0312  
 146,062  
 219,093  
 292,125  
 Max 307,393 at Node 1  
 Min -349,887 at Node 159

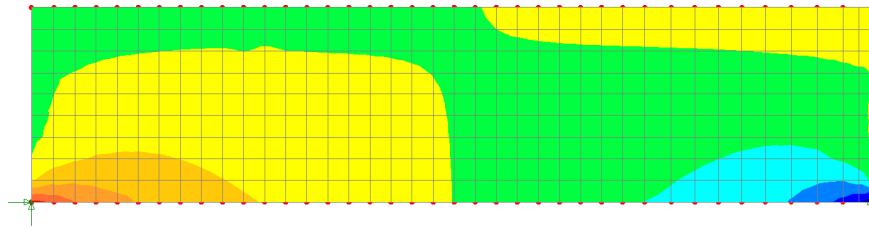


Figura A.2.1.137 – Face lateral 2 - Esforço Ny

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -184,24  
 -138,18  
 -92,1202  
 -46,0601  
 0,0142109E-12  
 46,0601  
 92,1202  
 138,18  
 184,24  
 Max 206,673 at Node 159  
 Min -207,868 at Node 160

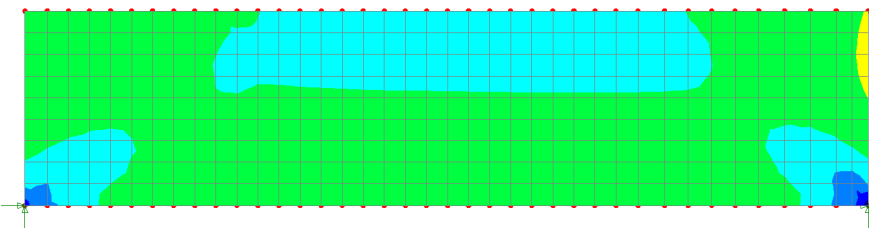


Figura A.2.1.138 – Face lateral 1 - Esforço Nxy

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 0,0  
 23,6297  
 47,2593  
 70,889  
 94,5186  
 118,148  
 141,778  
 165,408  
 189,037  
 Max 206,673 at Node 159  
 Min -5,99344 at Node 104

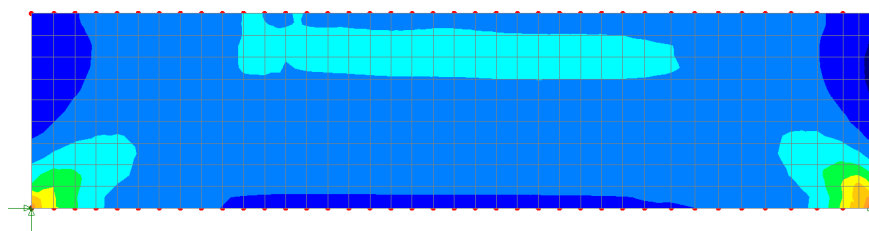
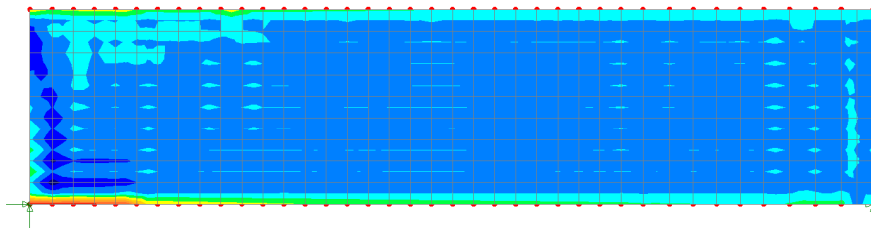


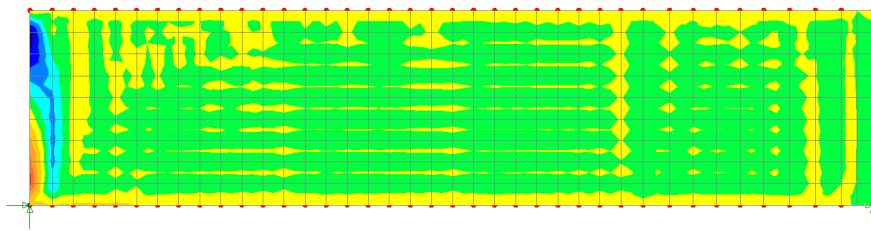
Figura A.2.1.139 – Face lateral 2 - Esforço Nxy

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -4,85371E-3  
 -2,42686E-3  
 0,0  
 2,42686E-3  
 4,85371E-3  
 7,28057E-3  
 9,70743E-3  
 0,0121343  
 0,0145611  
 Max 0,0156321 at Node 34  
 Min -6,20962E-3 at Node 334



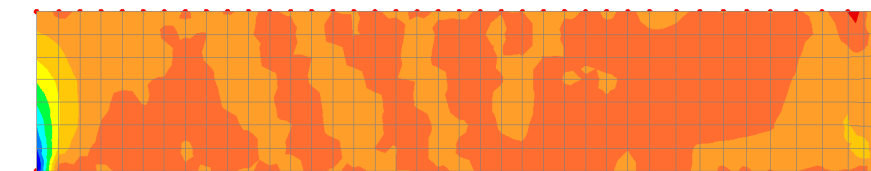
**Figura A.2.1.140 – Face lateral - Esforço Mx**

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: My  
 -0,0149826  
 -0,011237  
 -7,4913E-3  
 -3,74565E-3  
 0,0  
 3,74565E-3  
 7,4913E-3  
 0,011237  
 0,0149826  
 Max 0,0161059 at Node 255  
 Min -0,017605 at Node 291



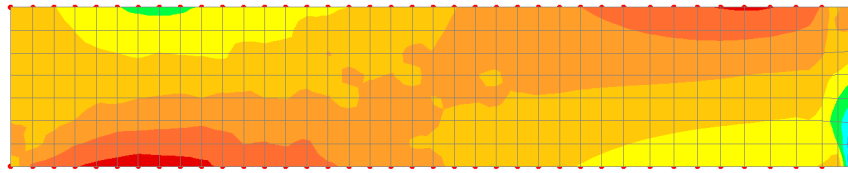
**Figura A.2.1.141 – Face lateral - Esforço My**

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Nx  
 -66,3407  
 -56,8635  
 -47,3862  
 -37,909  
 -28,4317  
 -18,9545  
 -9,47724  
 0,0  
 9,47724  
 Max 15,1137 at Node 50  
 Min -70,1815 at Node 13



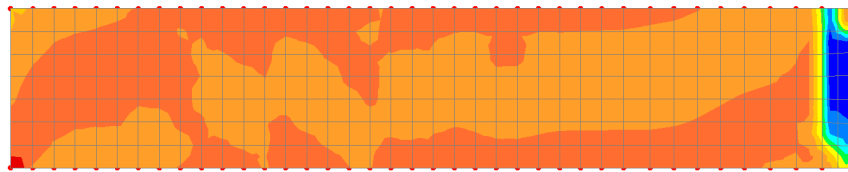
**Figura A.2.1.142 – Cobertura - Esforço Nx**

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -81,4907  
 -67,9089  
 -54,3271  
 -40,7453  
 -27,1636  
 -13,5818  
 0,0  
 13,5818  
 27,1636  
 Max 33,9834 at Node 554  
 Min -88,2526 at Node 296



**Figura A.2.1.143 – Cobertura - Esforço Ny**

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -53,5884  
 -40,1913  
 -26,7942  
 -13,3971  
 -3,55271E-15  
 13,3971  
 26,7942  
 40,1913  
 53,5884  
 Max 65,4789 at Node 13  
 Min -55,095 at Node 2055



**Figura A.2.1.144 – Cobertura - Esforço Nxy**

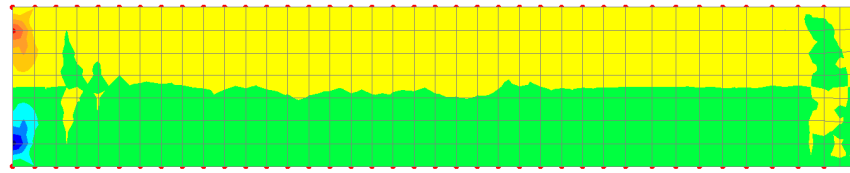
Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -6,96485E-3  
 -5,22364E-3  
 -3,48243E-3  
 -1,74121E-3  
 -0,433681E-18  
 1,74121E-3  
 3,48243E-3  
 5,22364E-3  
 6,96485E-3  
 Max 7,80549E-3 at Node 197  
 Min -7,86543E-3 at Node 32



**Figura A.2.1.145 – Cobertura - Esforço Mx**

Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: My

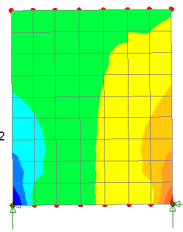
Max 0,014689 at Node 197  
 Min -0,0148648 at Node 304



**Figura A.2.1.146 – Cobertura - Esforço My**

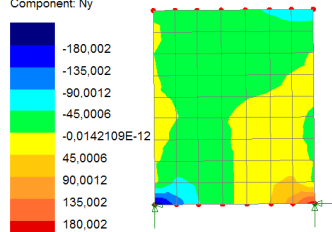
Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Nx

Max 206,182 at Node 160  
 Min -206,485 at Node 159



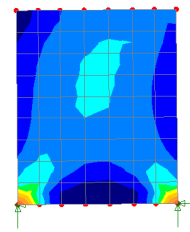
Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Ny

Max 201,328 at Node 160  
 Min -203,677 at Node 159



Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Nxy

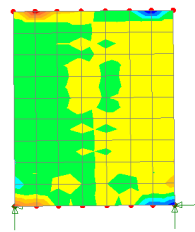
Max 186,689 at Node 159  
 Min 48,379 at Node 2117



**Figura A.2.1.147 – Face frontal - Esforço Nx, Ny e Nxy**

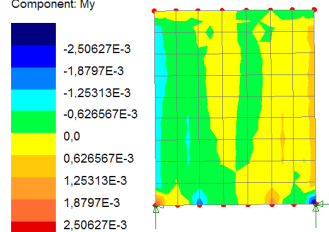
Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: Mx

Max 2,19887E-3 at Node 2018  
 Min -1,92637E-3 at Node 1948

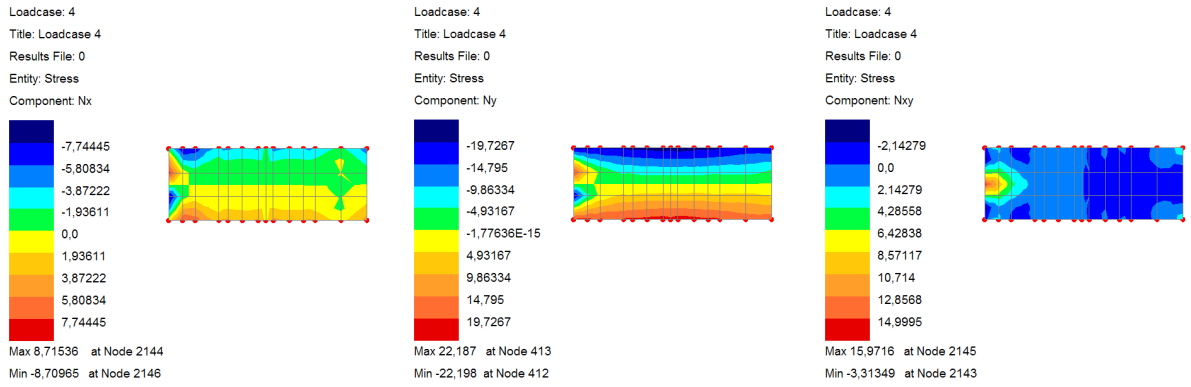


Loadcase: 4  
 Title: Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Component: My

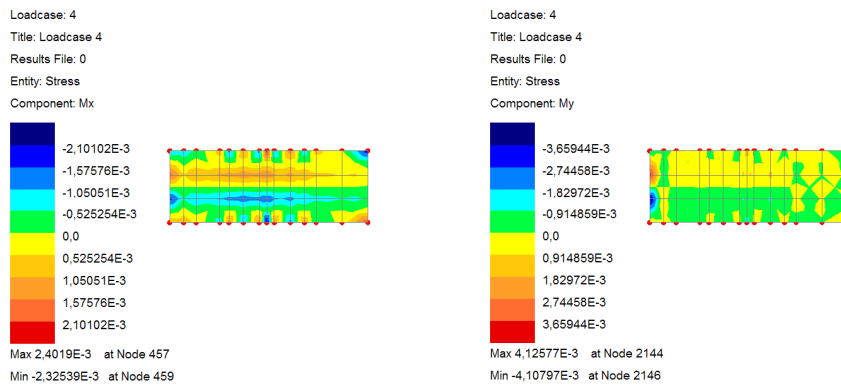
Max 2,74487E-3 at Node 159  
 Min -2,89423E-3 at Node 160



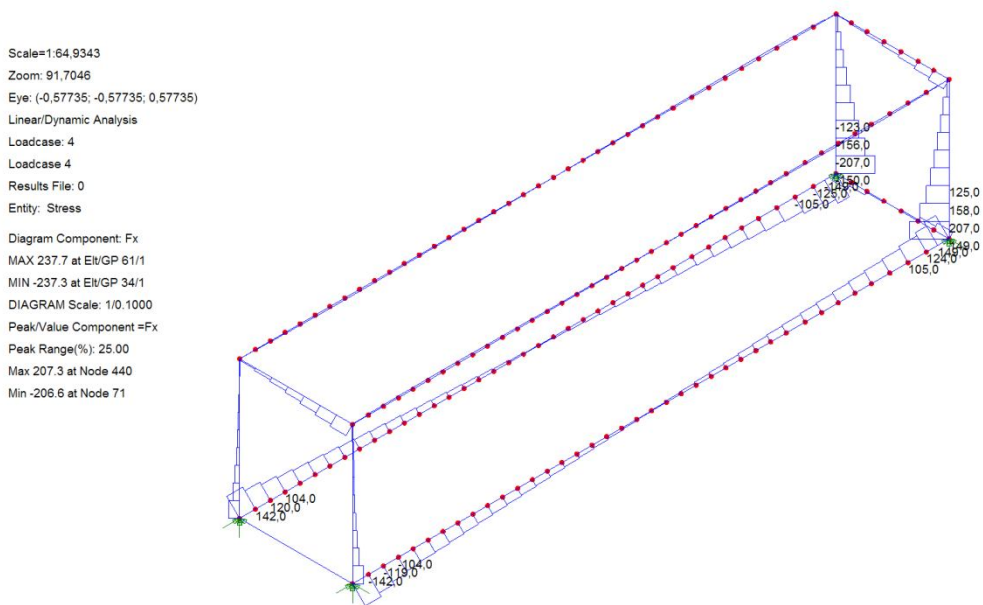
**Figura A.2.1.148 – Face frontal - Esforço Mx e My**



**Figura A.2.1.149 – Abertura para os garfos - FP - Esforço Nx, Ny e Nxy**

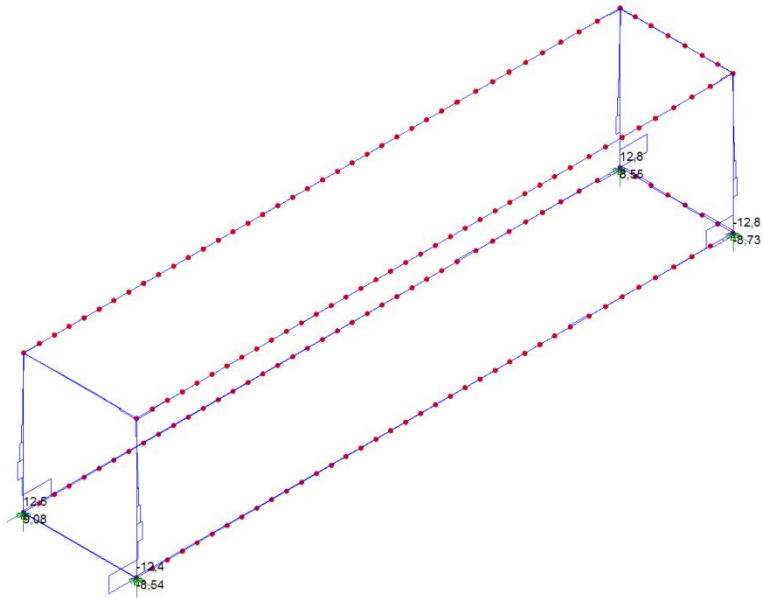


**Figura A.2.1.150 – Bfp - Esforço Mx e My**



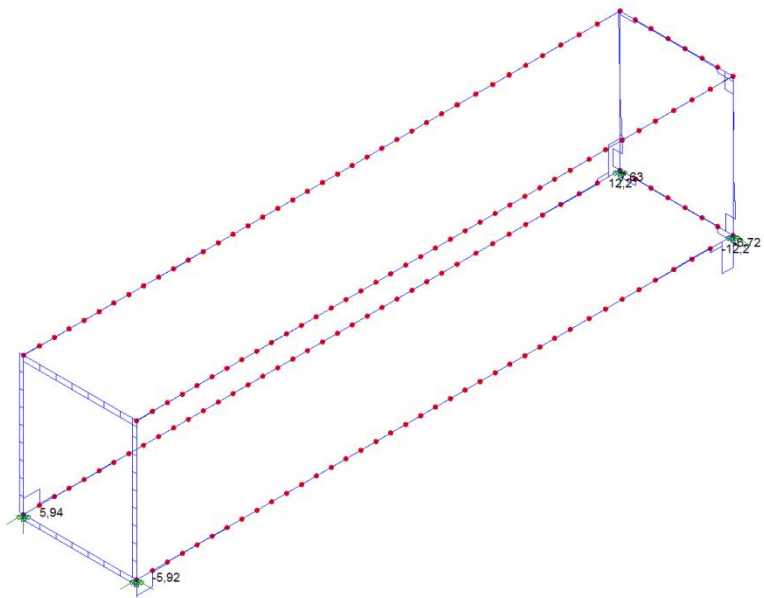
**Figura A.2.1.151 – Vista geral - Diagrama Fx**

Scale=1:64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 26.47 at Elt/GP 1/1  
 MIN -26.41 at Elt/GP 73/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fy  
 Peak Range(%): 25,00  
 Max 12,79 at Node 71  
 Min -12,84 at Node 440



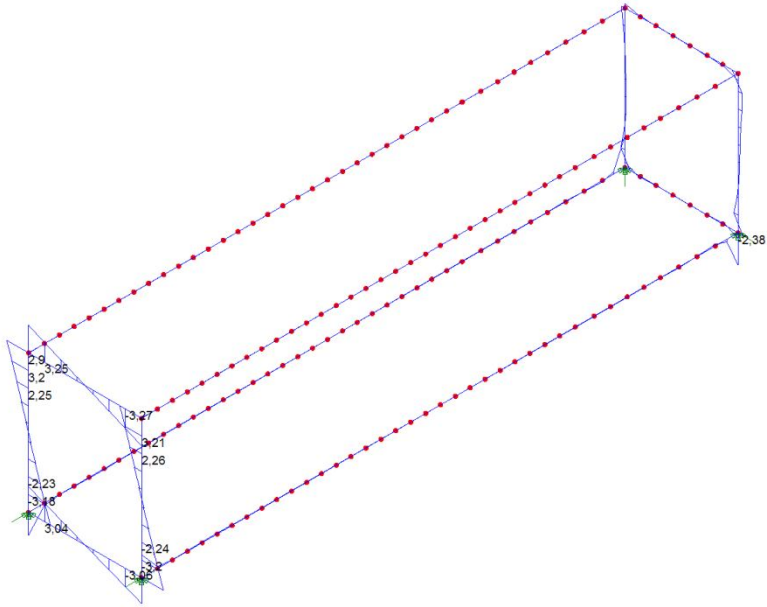
**Figura A.2.1.152 – Vista geral - Diagrama Fy**

Scale=1:64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 21.44 at Elt/GP 46/1  
 MIN -21.57 at Elt/GP 731/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fz  
 Peak Range(%): 30,00  
 Max 12,15 at Node 379  
 Min -12,23 at Node 1930



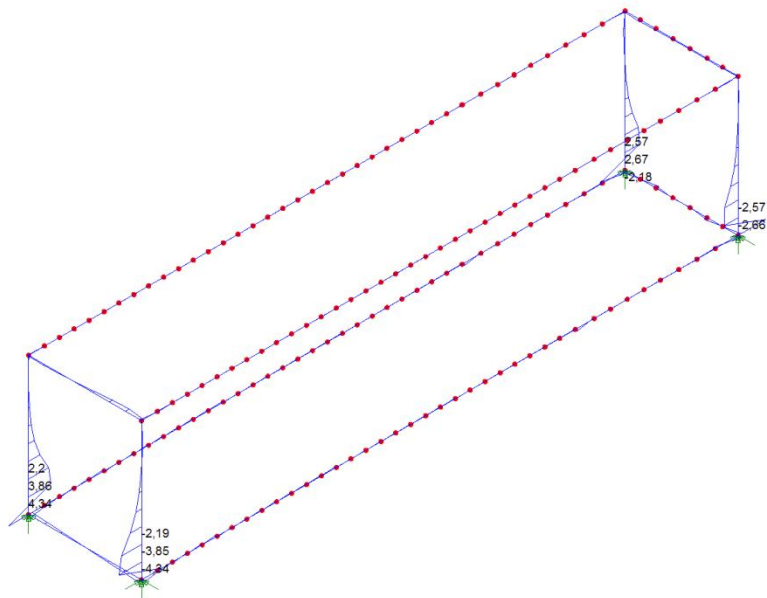
**Figura A.2.1.153 – Vista geral - Diagrama Fz**

Scale=1:64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 5.294 at Elt/GP 46/11  
 MIN -5.324 at Elt/GP 731/11  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =My  
 Peak Range(%): 20,00  
 Max 3.246 at Node 197  
 Min -3.268 at Node 304

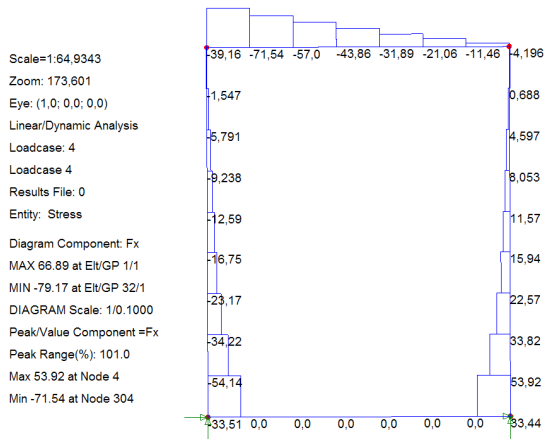


**Figura A.2.1.154 – Vista geral - Diagrama My**

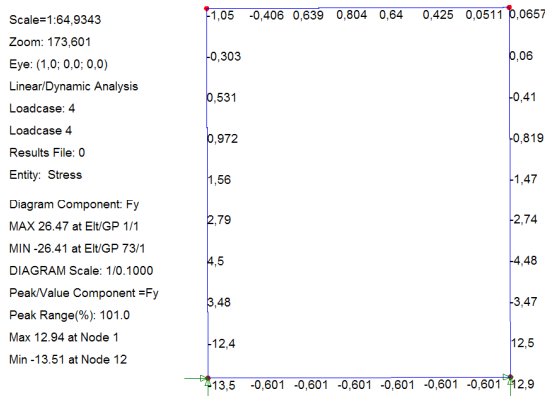
Scale=1:64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 5.330 at Elt/GP 61/1  
 MIN -5.299 at Elt/GP 34/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 25,00  
 Max 4.343 at Node 4  
 Min -4.340 at Node 255



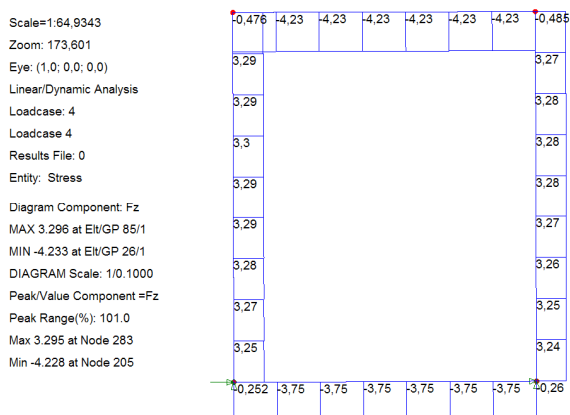
**Figura A.2.1.155 – Vista geral - Diagrama Mz**



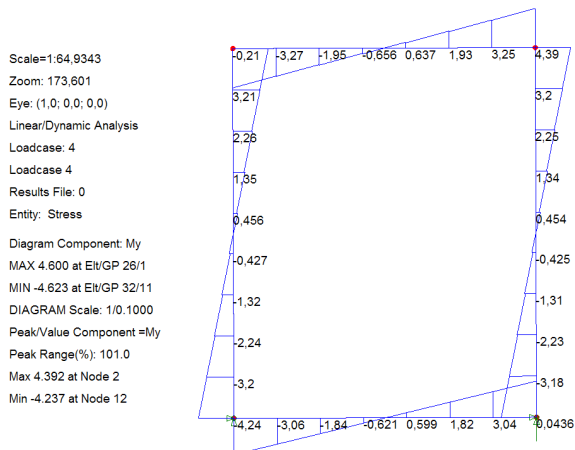
**Figura A.2.1.156 – Face da porta - Esforço Fx**



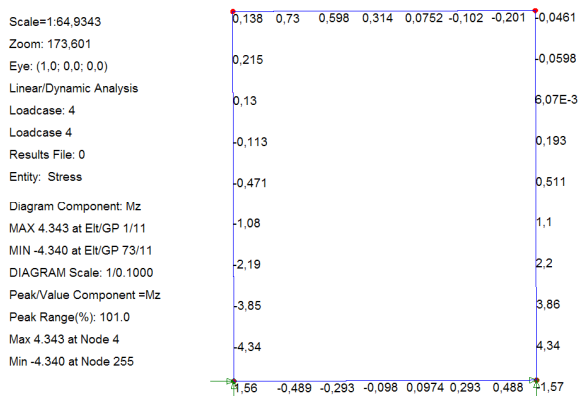
**Figura A.2.1.157 – Face da porta - Esforço Fy**



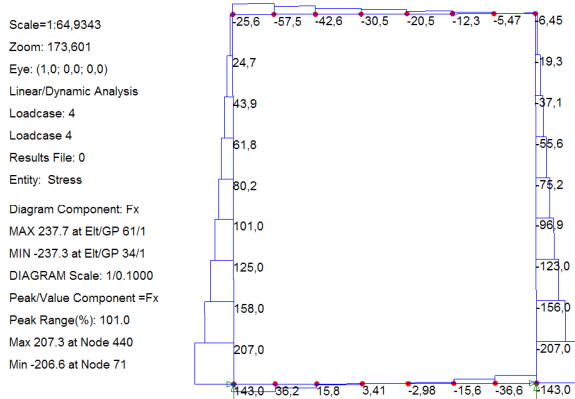
**Figura A.2.1.158 – Face da porta - Esforço Fz**



**Figura A.2.1.159 – Face da porta - Esforço My**

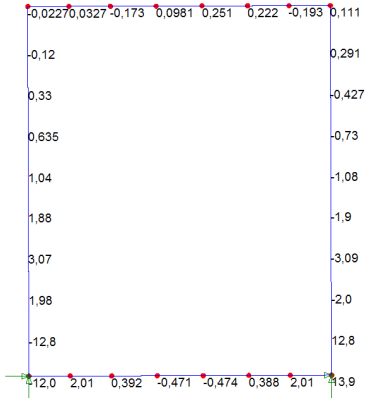


**Figura A.2.1.160 – Face da porta - Esforço Mz**



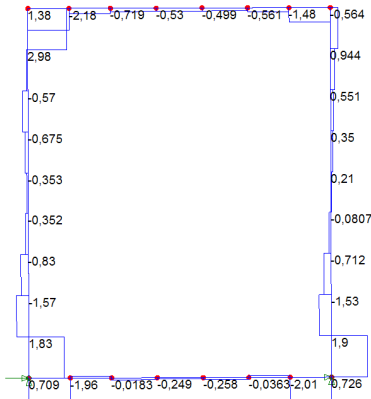
**Figura A.2.1.161 – Face frontal - Esforço Fx**

Scale=1:64,9343  
 Zoom: 173,601  
 Eye: (1,0,0,0,0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 25.87 at Elt/GP 34/1  
 MIN -25.94 at Elt/GP 61/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 101.0  
 Max 13.94 at Node 159  
 Min -12.84 at Node 440



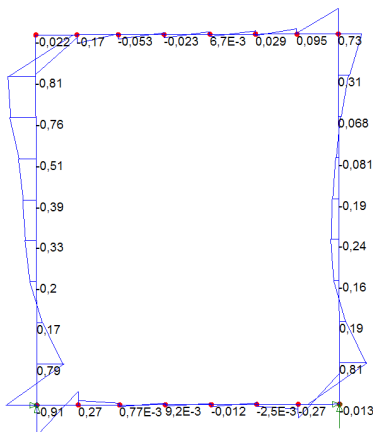
**Figura A.2.1.162 – Face frontal - Esforço Fy**

Scale=1:64,9343  
 Zoom: 173,601  
 Eye: (1,0,0,0,0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 6.216 at Elt/GP 126/1  
 MIN -4.263 at Elt/GP 2166/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 101.0  
 Max 2.984 at Node 1912  
 Min -2.182 at Node 1948

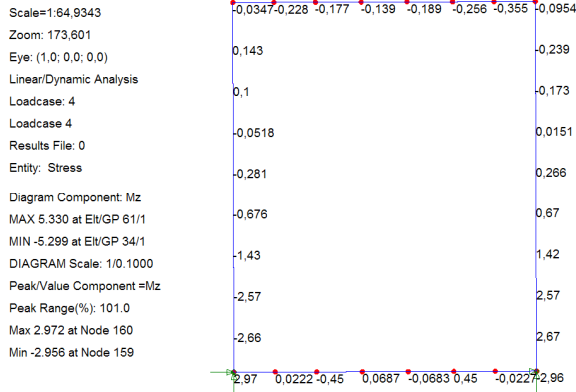


**Figura A.2.1.163 – Face frontal - Esforço Fz**

Scale=1:64,9343  
 Zoom: 173,601  
 Eye: (1,0,0,0,0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 1.121 at Elt/GP 126/11  
 MIN -1.184 at Elt/GP 755/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 101.0  
 Max 0.8065 at Node 71  
 Min -0.9074 at Node 160

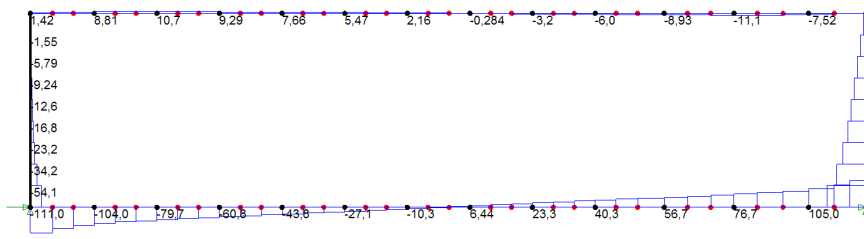


**Figura A.2.1.164 – Face frontal - Esforço My**



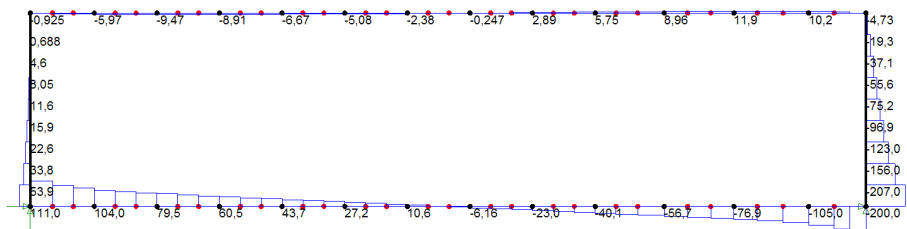
**Figura A.2.1.165 – Face frontal - Esforço Mz**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 237.7 at Elt/GP 61/1  
 MIN -154.5 at Elt/GP 20/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 40.00  
 Max 207.3 at Node 440  
 Min -141.6 at Node 37



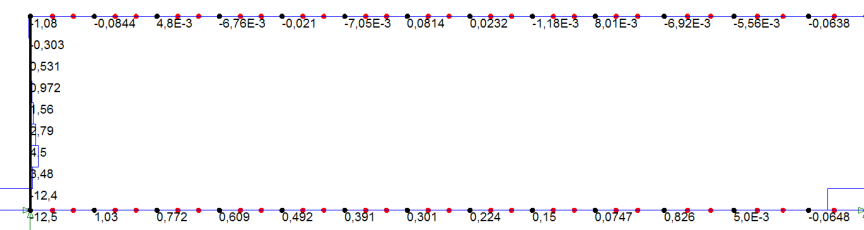
**Figura A.2.1.166 – Face lateral 1 – Esforço Fx**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 154.8 at Elt/GP 7/1  
 MIN -237.3 at Elt/GP 34/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 40.00  
 Max 141.8 at Node 26  
 Min -206.6 at Node 71



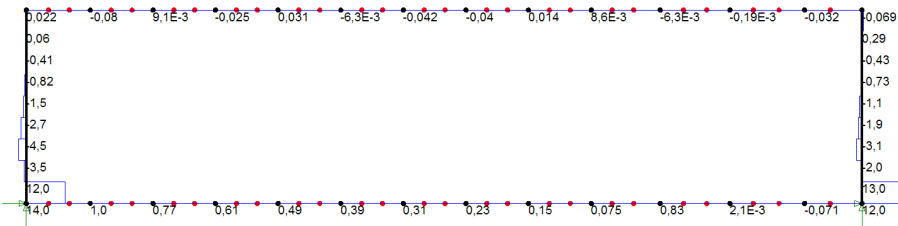
**Figura A.2.1.167 – Face lateral 2 – Esforço Fx**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 5.385 at Elt/GP 75/1  
 MIN -26.41 at Elt/GP 73/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 40.00  
 Max 4.497 at Node 267  
 Min -14.09 at Node 160



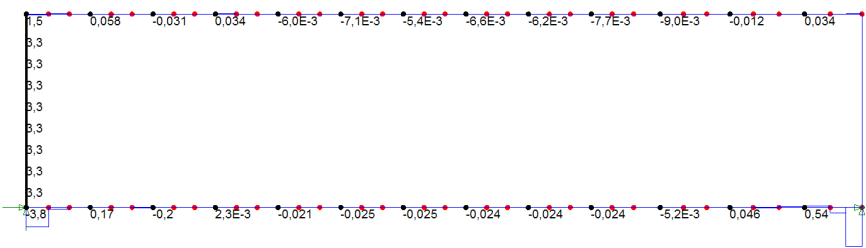
**Figura A.2.1.168 – Face lateral 1 – Esforço Fy**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 26.47 at Elt/GP 1/1  
 MIN -5.374 at Elt/GP 3/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 40.00  
 Max 13.93 at Node 1  
 Min -4.476 at Node 8



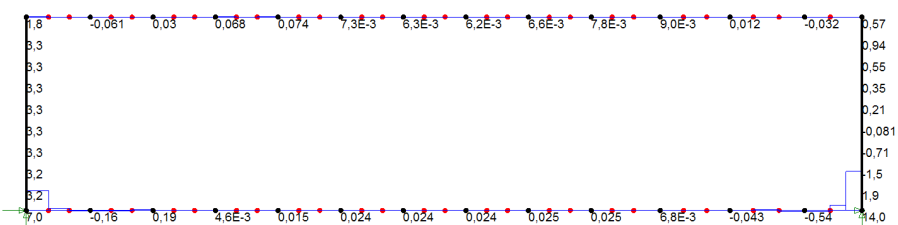
**Figura A.2.1.169 – Face lateral 2 – Esforço Fy**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 6.216 at Elt/GP 126/1  
 MIN -21.67 at Elt/GP 731/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 40.00  
 Max 3.295 at Node 283  
 Min -12.23 at Node 1930



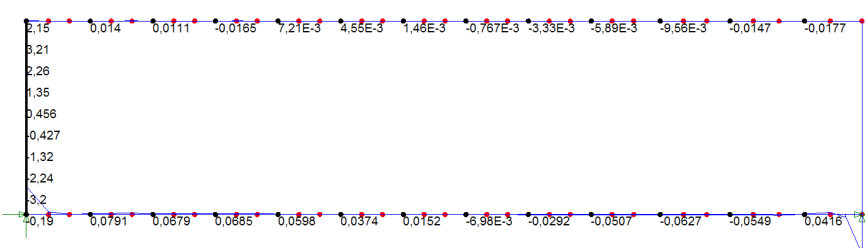
**Figura A.2.1.170 – Face lateral 1 – Esforço Fz**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 21.44 at Elt/GP 46/1  
 MIN -1.916 at Elt/GP 35/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 40.00  
 Max 13.58 at Node 159  
 Min -1.527 at Node 77



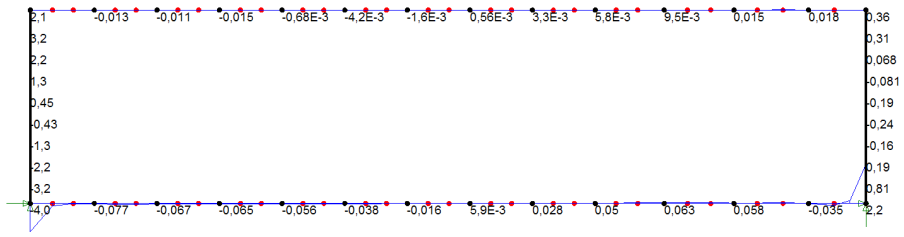
**Figura A.2.1.171 – Face lateral 2 – Esforço Fz**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 4.204 at Elt/GP 89/11  
 MIN -5.324 at Elt/GP 731/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 40.00  
 Max 3.211 at Node 291  
 Min -3.200 at Node 255



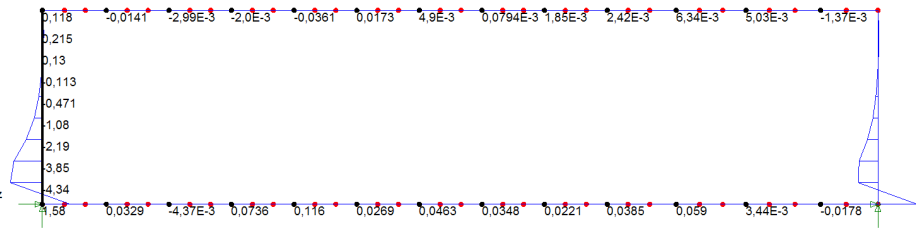
**Figura A.2.1.172 – Face lateral 1 – Esforço My**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 5.294 at Elt/GP 46/11  
 MIN -4.172 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 40.00  
 Max 3.195 at Node 42  
 Min -4.000 at Node 1



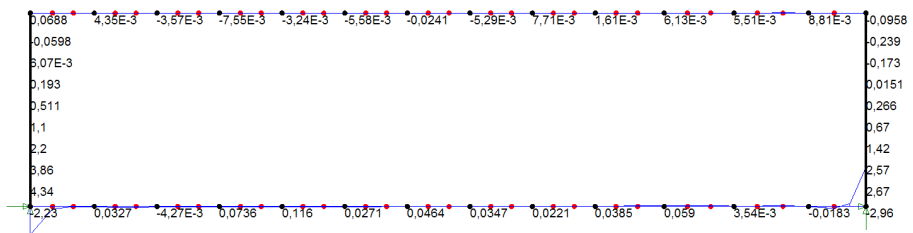
**Figura A.2.1.173 – Face lateral 2 – Esforço My**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 5.330 at Elt/GP 61/1  
 MIN -4.340 at Elt/GP 73/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 40.00  
 Max 2.358 at Node 160  
 Min -4.340 at Node 255



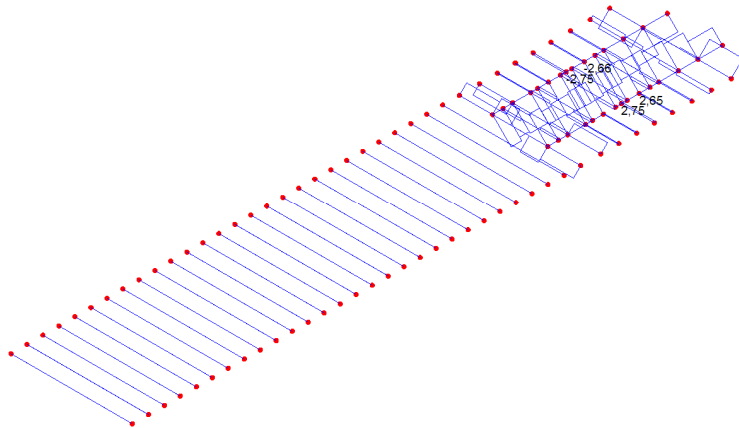
**Figura A.2.1.174 – Face lateral 1 – Esforço Mz**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 5.294 at Elt/GP 46/11  
 MIN -4.172 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 40.00  
 Max 4.343 at Node 4  
 Min -2.956 at Node 159



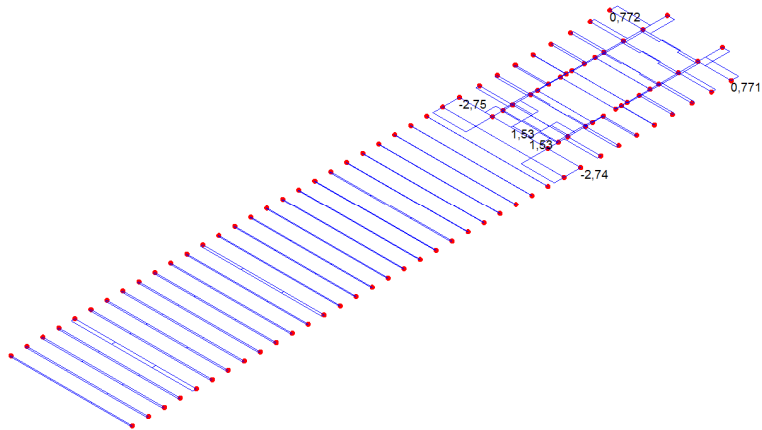
**Figura A.2.1.175 – Face lateral 2 – Esforço Mz**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 4.068 at Elt/GP 826/1  
 MIN -4.069 at Elt/GP 829/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 2.000  
 Max 2.753 at Node 459  
 Min -2.755 at Node 457



**Figura A.2.1.176 – Estrutura da base – Esforço Fx**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 2.869 at Elt/GP 815/1  
 MIN -2.746 at Elt/GP 305/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 25.00  
 Max 1.533 at Node 2144  
 Min -2.746 at Node 132



**Figura A.2.1.177 – Estrutura da base – Esforço Fy**



Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 1,165 at Elt/GP 306/1  
 MIN -1,166 at Elt/GP 305/11  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 25,00  
 Max 0,6814 at Node 433  
 Min -0,7772 at Node 431

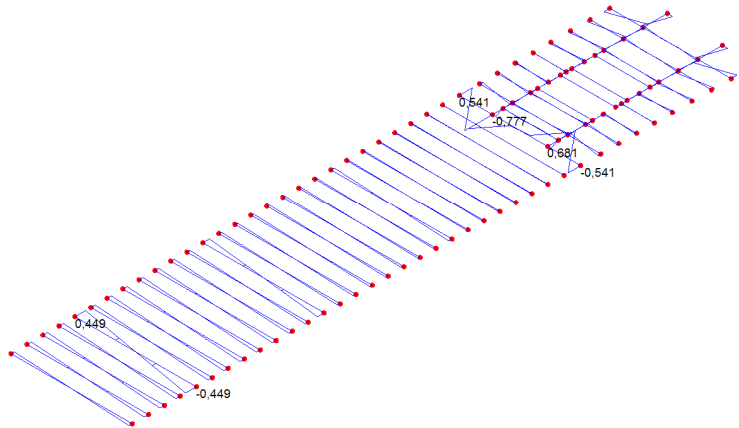
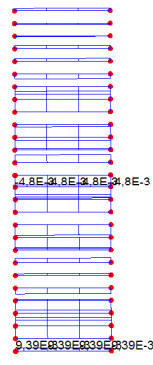
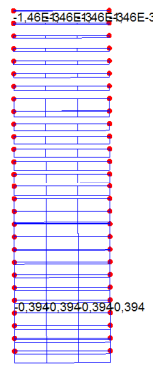


Figura A.2.1.180 – Estrutura da base – Esforço Mz

Scale=1:64,9343  
 Zoom: 54,8848  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0,9388E-02 at Elt/GP 2001/1  
 MIN -0,4796E-02 at Elt/GP 2039/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fx  
 Peak Range(%): 2,000  
 Max 0,9388E-02 at Node 52  
 Min -0,4796E-02 at Node 90



Scale=1:64,9343  
 Zoom: 54,8848  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX -0,1456E-02 at Elt/GP 2078/1  
 MIN -0,3944 at Elt/GP 2009/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fy  
 Peak Range(%): 2,000  
 Max -0,1456E-02 at Node 129  
 Min -0,3944 at Node 60



Scale=1:64,9343  
 Zoom: 54,8848  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX -0,6047E-01 at Elt/GP 2073/1  
 MIN -0,3098 at Elt/GP 2002/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fz  
 Peak Range(%): 2,000  
 Max -0,6047E-01 at Node 4355  
 Min -0,3098 at Node 52

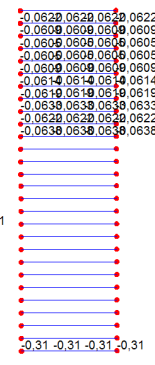
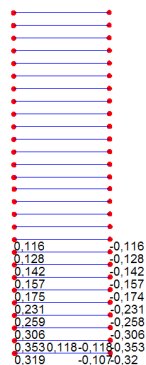


Figura A.2.1.181 – Perfis transversais – Esforço Fx, Fy e Fz

Scale=1:64,9343  
 Zoom: 54,8848  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0,3527 at Elt/GP 2000/1  
 MIN -0,3527 at Elt/GP 2002/11  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =My  
 Peak Range(%): 35,00  
 Max 0,3527 at Node 51  
 Min -0,3527 at Node 52



Scale=1:64,9343  
 Zoom: 54,8848  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0,4490 at Elt/GP 2009/1  
 MIN -0,4490 at Elt/GP 2011/11  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 20,00  
 Max 0,4490 at Node 60  
 Min -0,4490 at Node 61

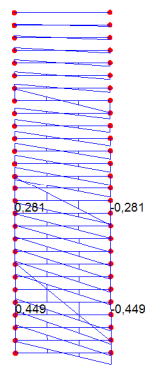
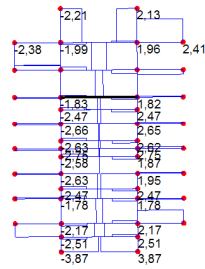
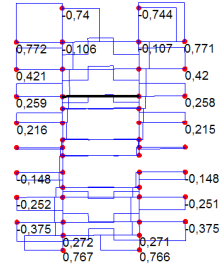


Figura A.2.1.182 – Perfis transversais – Esforço My e Mz

Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 4.068 at Elt/GP 826/1  
 MIN -4.069 at Elt/GP 829/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 30.00  
 Max 3.870 at Node 433  
 Min -3.872 at Node 431

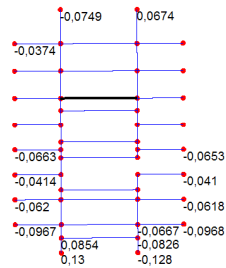


Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.7722 at Elt/GP 303/1  
 MIN -0.7438 at Elt/GP 1383/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 43.00  
 Max 0.7722 at Node 156  
 Min -0.7438 at Node 392



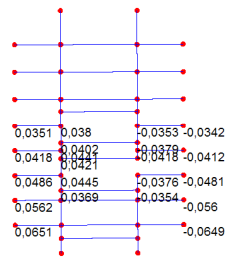
**Figura A.2.1.183 – Abertura para os garfos - Perfis transversais – Esforço Fx e Fy**

Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1302 at Elt/GP 760/1  
 MIN -0.1276 at Elt/GP 757/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 35.00  
 Max 0.1302 at Node 431  
 Min -0.1276 at Node 433

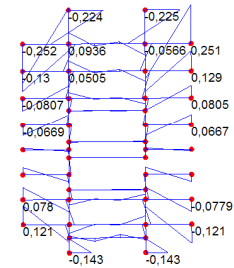


**Figura A.2.1.184 – Abertura para os garfos - Perfis transversais – Esforço Fz**

Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.6598E-01 at Elt/GP 829/1  
 MIN -0.6490E-01 at Elt/GP 289/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 25.00  
 Max 0.6507E-01 at Node 135  
 Min -0.6490E-01 at Node 136



Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 4  
 Loadcase 4  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.2512 at Elt/GP 304/11  
 MIN -0.2517 at Elt/GP 303/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 40.00  
 Max 0.2512 at Node 157  
 Min -0.2517 at Node 156



**Figura A.2.1.185 – Abertura para os garfos - Perfis transversais – Esforço My e Mz**

## Caso de carga 4

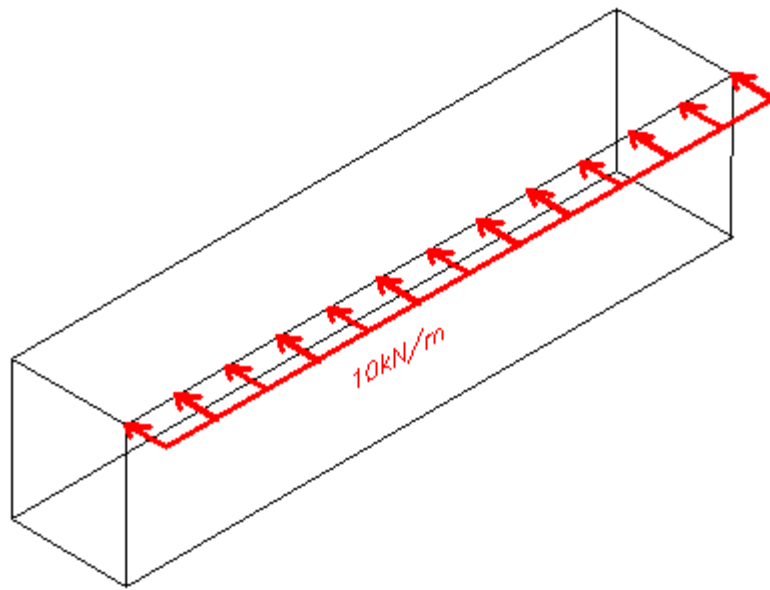


Figura A.2.1.186 – Caso de carga 4

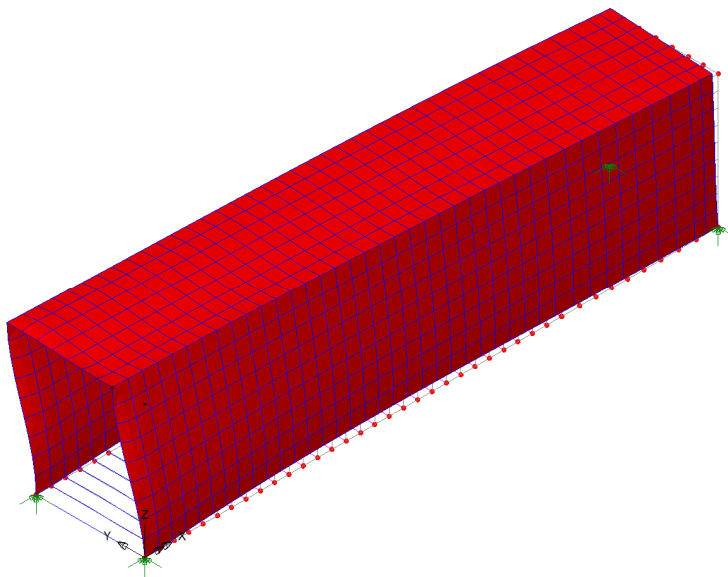
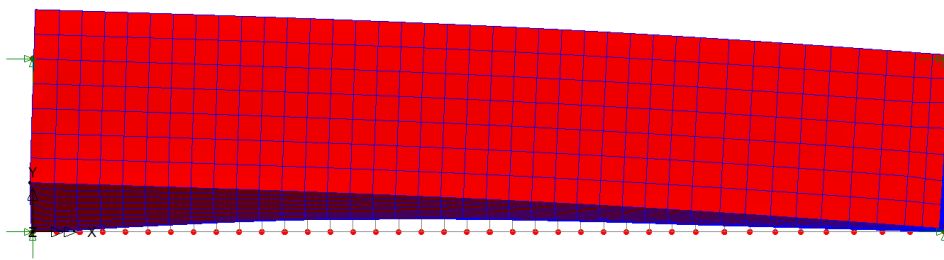
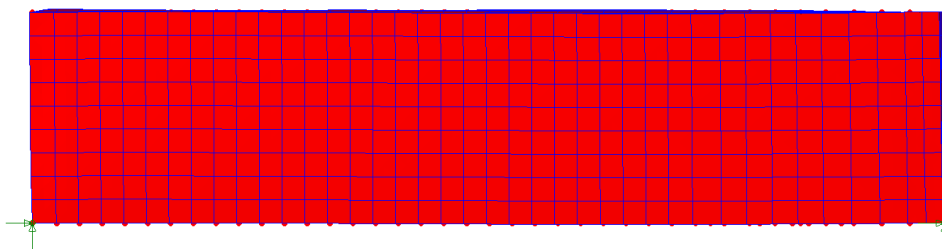


Figura A.2.1.187 – Vista geral deformada

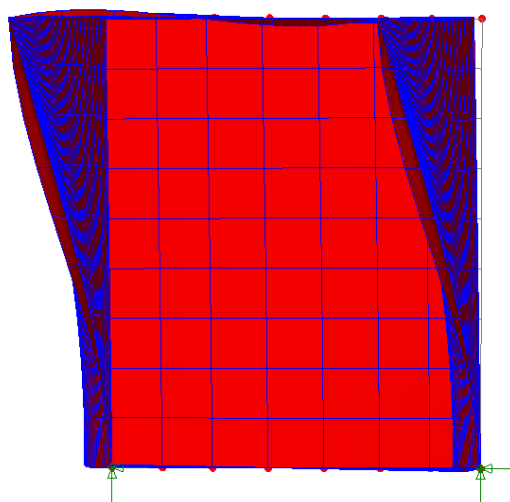
Deslocamento máximo: 15,9 mm



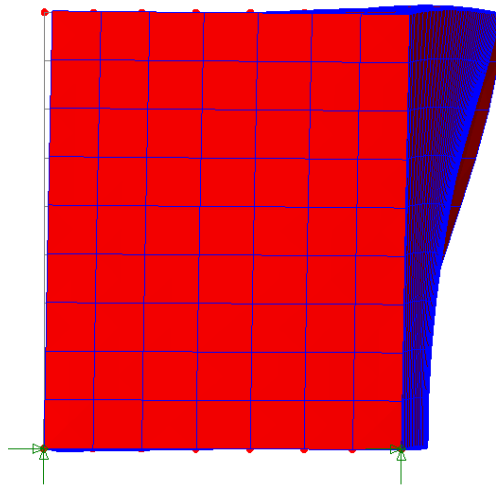
**Figura A.2.1.188 – Vista da cobertura deformada**



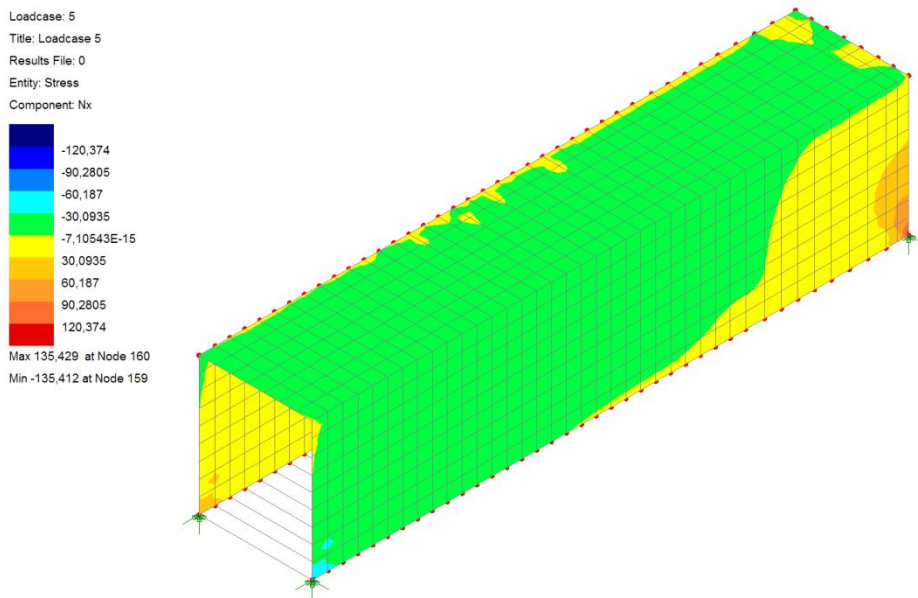
**Figura A.2.1.189 – Vista da face lateral deformada**



**Figura A.2.1.190 – Vista da face da porta deformada**



**Figura A.2.1.191 – Vista da face frontal deformada**



**Figura A.2.1.192 – Vista geral - Esforço Nx**

Loadcase: 5  
Title: Loadcase 5  
Results File: 0  
Entity: Stress  
Component: Ny

Dark Blue	-175,545
Blue	-131,659
Cyan	-87,7724
Light Green	-43,8862
Yellow	-0,0142109E-12
Orange	43,8862
Light Red	87,7724
Red	131,659
Dark Red	175,545

Max 197,631 at Node 1  
Min -197,345 at Node 12

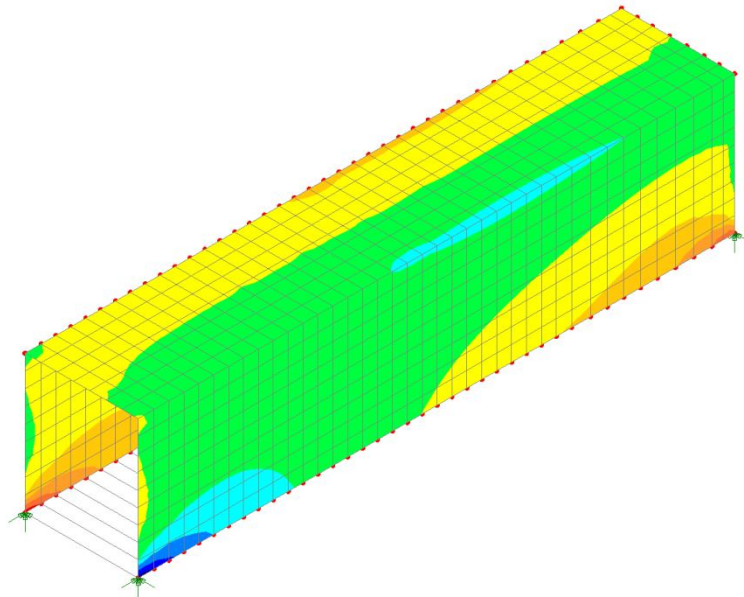


Figura A.2.1.193 – Vista geral - Esforço Ny

Loadcase: 5  
Title: Loadcase 5  
Results File: 0  
Entity: Stress  
Component: Nxy

Dark Blue	-95,2825
Blue	-71,4819
Cyan	-47,6413
Light Green	-23,8206
Yellow	7,10543E-15
Orange	23,8206
Light Red	47,6413
Red	71,4819
Dark Red	95,2825

Max 113,8 at Node 159  
Min -100,585 at Node 12

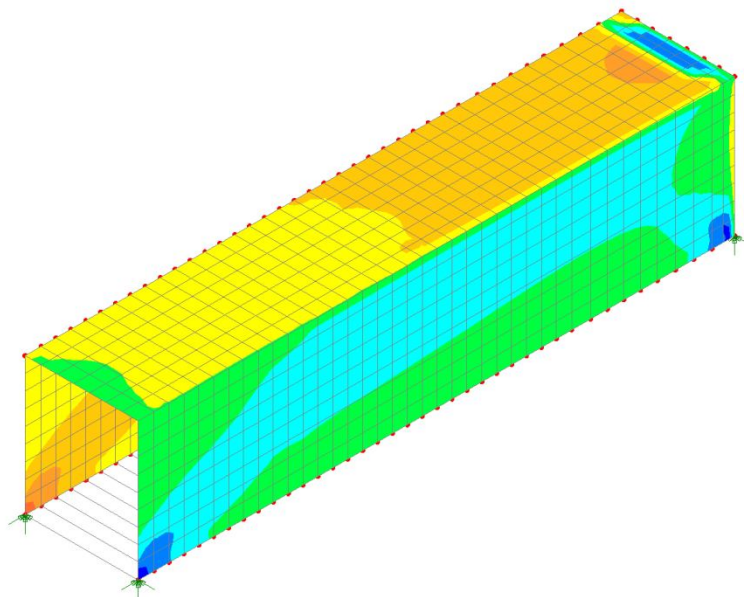


Figura A.2.1.194 – Vista geral - Esforço Nxy

Loadcase: 5  
Title: Loadcase 5  
Results File: 0  
Entity: Stress  
Component: Mx

Dark Blue	-3,38292E-3
Blue	-1,69146E-3
Cyan	0,0
Light Green	1,69146E-3
Green	3,38292E-3
Yellow	5,07438E-3
Orange	6,76584E-3
Red-Orange	8,4573E-3
Red	0,0101488

Max 0,010291 at Node 52  
Min -4,93212E-3 at Node 304

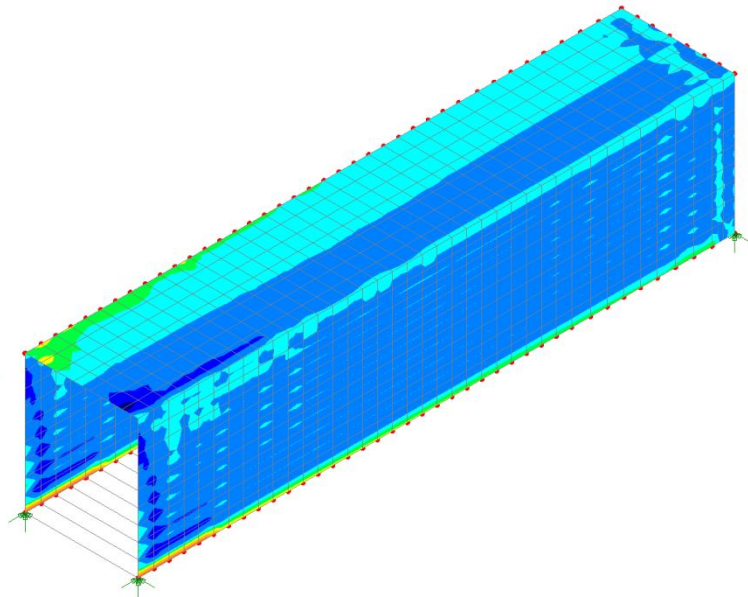


Figura A.2.1.195 – Vista geral - Esforço Mx

Loadcase: 5  
Title: Loadcase 5  
Results File: 0  
Entity: Stress  
Component: Mx

Dark Blue	-3,38292E-3
Blue	-1,69146E-3
Cyan	0,0
Light Green	1,69146E-3
Green	3,38292E-3
Yellow	5,07438E-3
Orange	6,76584E-3
Red-Orange	8,4573E-3
Red	0,0101488

Max 0,010291 at Node 52  
Min -4,93212E-3 at Node 304

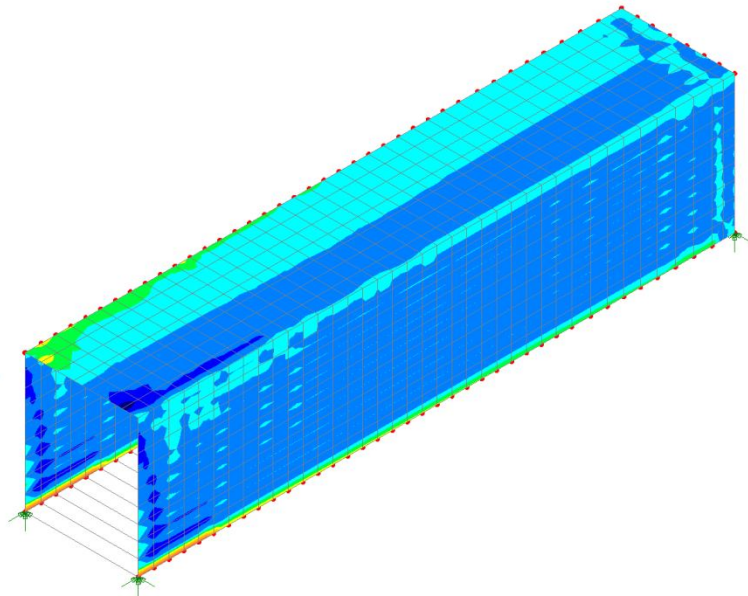
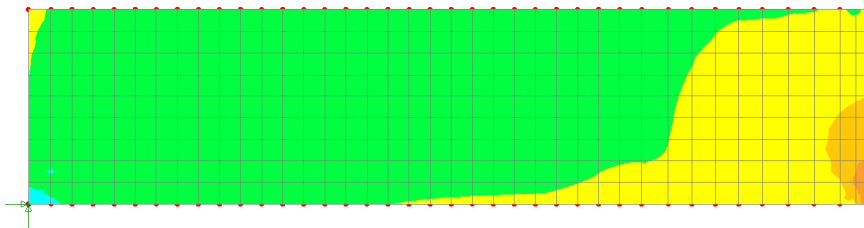


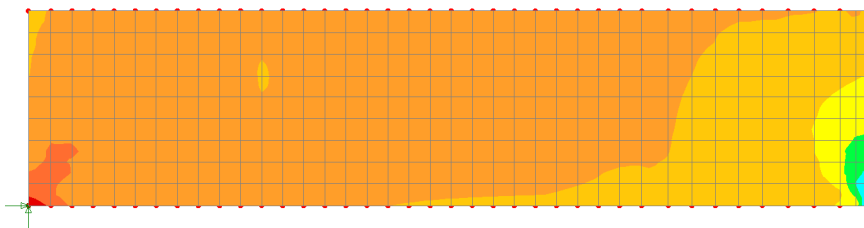
Figura A.2.1.196 – Vista geral - Esforço My

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Nx  
 -129,921  
 -97,441  
 -64,9607  
 -32,4803  
 0,0142109E-12  
 32,4803  
 64,9607  
 97,441  
 129,921  
 Max 146,195 at Node 160  
 Min -146,128 at Node 159



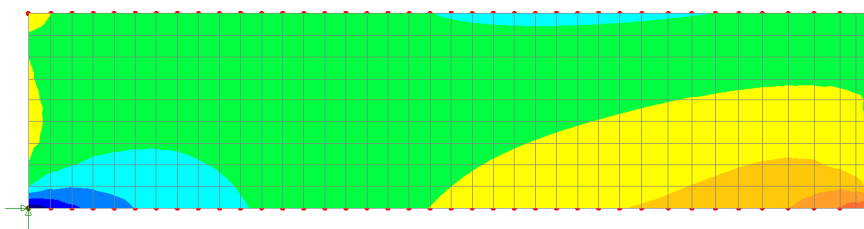
**Figura A.2.1.197 – Face lateral 1 - Esforço Nx**

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Nx  
 -142,262  
 -118,552  
 -94,8412  
 -71,1309  
 -47,4206  
 -23,7103  
 0,0  
 23,7103  
 47,4206  
 Max 67,2646 at Node 1  
 Min -146,128 at Node 159



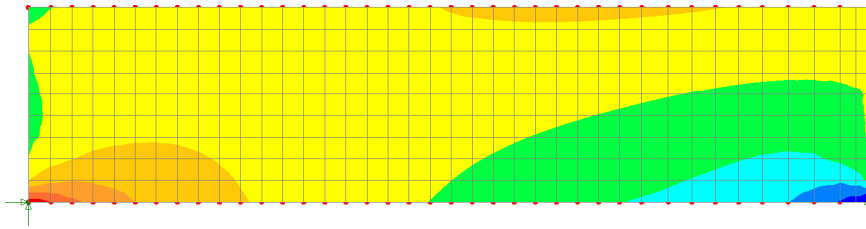
**Figura A.2.1.198 – Face lateral 2 - Esforço Nx**

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -175,545  
 -131,659  
 -87,7724  
 -43,8862  
 -0,0142109E-12  
 43,8862  
 87,7724  
 131,659  
 175,545  
 Max 197,631 at Node 1  
 Min -197,345 at Node 12



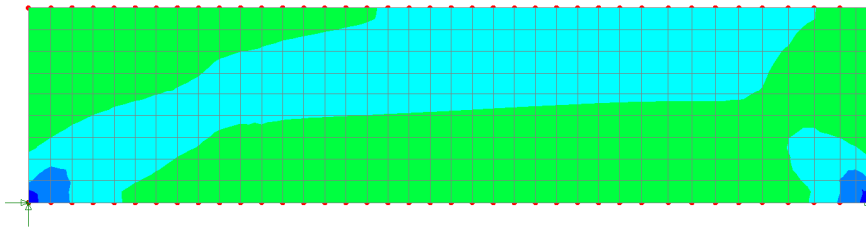
**Figura A.2.1.199 – Face lateral 1 - Esforço Ny**

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -174,509  
 -130,882  
 -87,2545  
 -43,6273  
 -0,0142109E-12  
 43,6273  
 87,2545  
 130,882  
 174,509  
 Max 197,631 at Node 1  
 Min -195,014 at Node 159



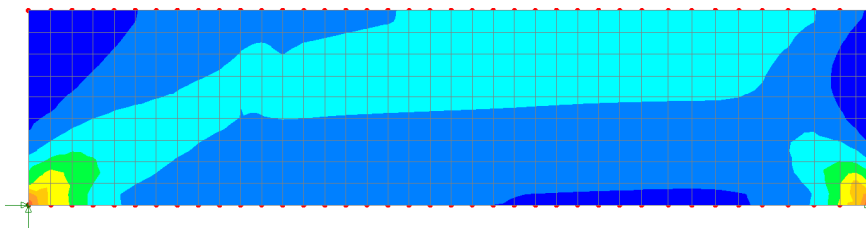
**Figura A.2.1.200 – Face lateral 2 - Esforço Ny**

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -103,39  
 -77,5422  
 -51,6948  
 -25,8474  
 0,0  
 25,8474  
 51,6948  
 77,5422  
 103,39  
 Max 116,217 at Node 159  
 Min -116,41 at Node 160



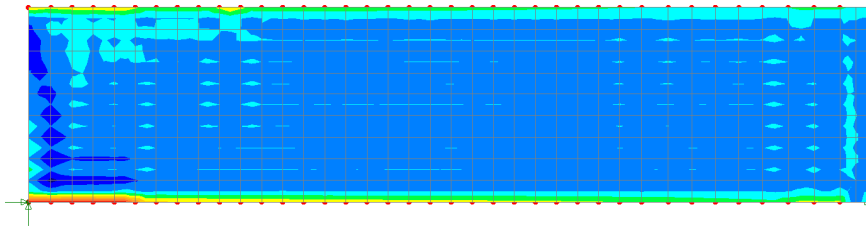
**Figura A.2.1.201 – Face lateral 1 - Esforço Nxy**

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 0,0  
 13,0855  
 26,1711  
 39,2566  
 52,3421  
 65,4276  
 78,5132  
 91,5987  
 104,684  
 Max 116,217 at Node 159  
 Min -1,55315 at Node 98



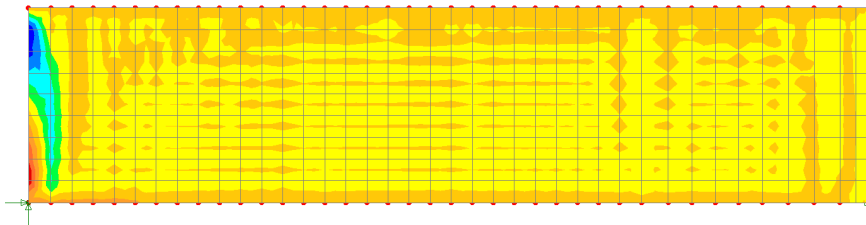
**Figura A.2.1.202 – Face lateral 2 - Esforço Nxy**

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -3,11019E-3  
 -1,55509E-3  
 0,0  
 1,55509E-3  
 3,11019E-3  
 4,66528E-3  
 6,22037E-3  
 7,77546E-3  
 9,33056E-3  
 Max 0,010291 at Node 52  
 Min -3,70482E-3 at Node 334



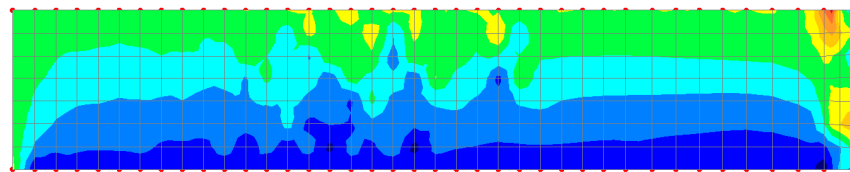
**Figura A.2.1.203 – Face lateral - Esforço Mx**

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: My  
 -0,0103289  
 -8,26389E-3  
 -6,19792E-3  
 -4,13195E-3  
 -2,06597E-3  
 0,0  
 2,06597E-3  
 4,13195E-3  
 6,19792E-3  
 Max 7,95515E-3 at Node 4  
 Min -0,0106386 at Node 291



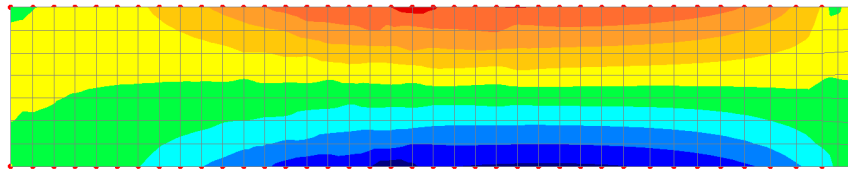
**Figura A.2.1.204 – Face lateral - Esforço My**

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Nx  
 -11,2408  
 -8,43062  
 -5,62042  
 -2,81021  
 0,0  
 2,81021  
 5,62042  
 8,43062  
 11,2408  
 Max 12,2635 at Node 50  
 Min -13,0284 at Node 292



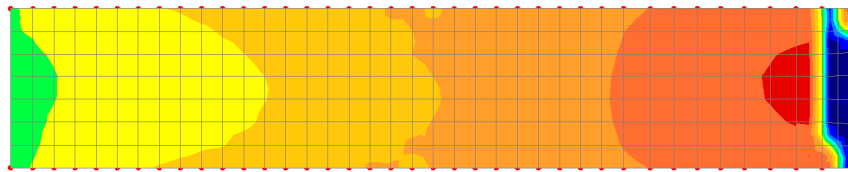
**Figura A.2.1.205 – Cobertura - Esforço Nx**

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -49,9421  
 -37,4566  
 -24,971  
 -12,4855  
 0,0  
 12,4855  
 24,971  
 37,4566  
 49,9421  
 Max 56,2723 at Node 1109  
 Min -56,0974 at Node 216



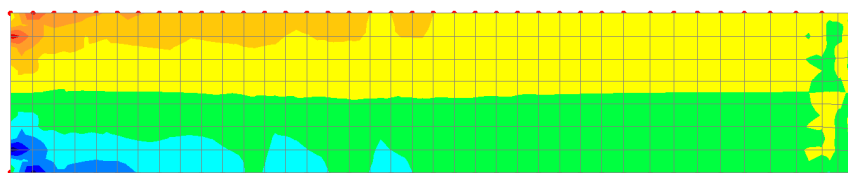
**Figura A.2.1.206 – Cobertura - Esforço Ny**

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -47,2453  
 -35,4339  
 -23,6226  
 -11,8113  
 3,55271E-15  
 11,8113  
 23,6226  
 35,4339  
 47,2453  
 Max 51,1668 at Node 2868  
 Min -55,135 at Node 2051



**Figura A.2.1.207 – Cobertura - Esforço Nxy**

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -4,38008E-3  
 -3,28506E-3  
 -2,19004E-3  
 -1,09502E-3  
 0,0  
 1,09502E-3  
 2,19004E-3  
 3,28506E-3  
 4,38008E-3  
 Max 4,92306E-3 at Node 197  
 Min -4,93212E-3 at Node 304



**Figura A.2.1.208 – Cobertura - Esforço Mx**

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: My

-8,36145E-3  
 -6,27109E-3  
 -4,18073E-3  
 -2,09036E-3  
 0,0  
 2,09036E-3  
 4,18073E-3  
 6,27109E-3  
 8,36145E-3

Max 9,38336E-3 at Node 197  
 Min -9,42991E-3 at Node 304

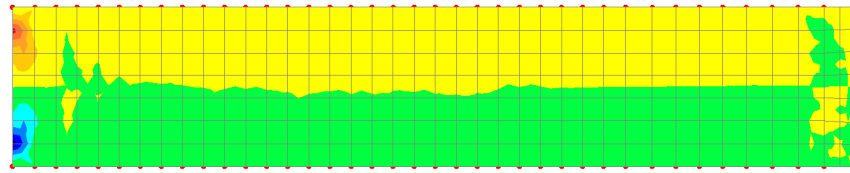
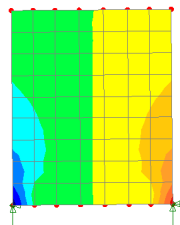


Figura A.2.1.209 – Cobertura - Esforço My

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Nx

-110,827  
 -83,1199  
 -55,4133  
 -27,7066  
 0,0  
 27,7066  
 55,4133  
 83,1199  
 110,827

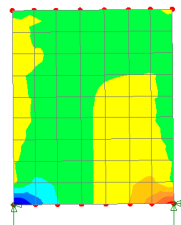
Max 124,663 at Node 160  
 Min -124,697 at Node 159



Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Ny

-107,977  
 -80,9824  
 -53,9883  
 -26,9941  
 -7,10543E-15  
 26,9941  
 53,9883  
 80,9824  
 107,977

Max 121,43 at Node 160  
 Min -121,517 at Node 159



Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Nxy

36,9013  
 46,1267  
 55,352  
 64,5773  
 73,8027  
 83,028  
 92,2533  
 101,479  
 110,704

Max 111,384 at Node 159  
 Min 28,356 at Node 2117

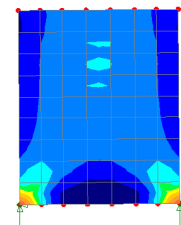
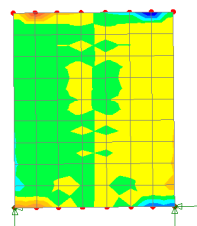


Figura A.2.1.210 – Face frontal - Esforço Nx, Ny e Nxy

Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: Mx

-1,30745E-3  
 -0,980585E-3  
 -0,653723E-3  
 -0,326862E-3  
 0,10842E-18  
 0,326862E-3  
 0,653723E-3  
 0,980585E-3  
 1,30745E-3

Max 1,46747E-3 at Node 2018  
 Min -1,47428E-3 at Node 1948



Loadcase: 5  
 Title: Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Component: My

-1,36258E-3  
 -1,02194E-3  
 -0,681292E-3  
 -0,340646E-3  
 0,10842E-18  
 0,340646E-3  
 0,681292E-3  
 1,02194E-3  
 1,36258E-3

Max 1,54882E-3 at Node 159  
 Min -1,51699E-3 at Node 160

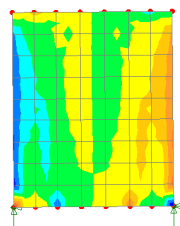
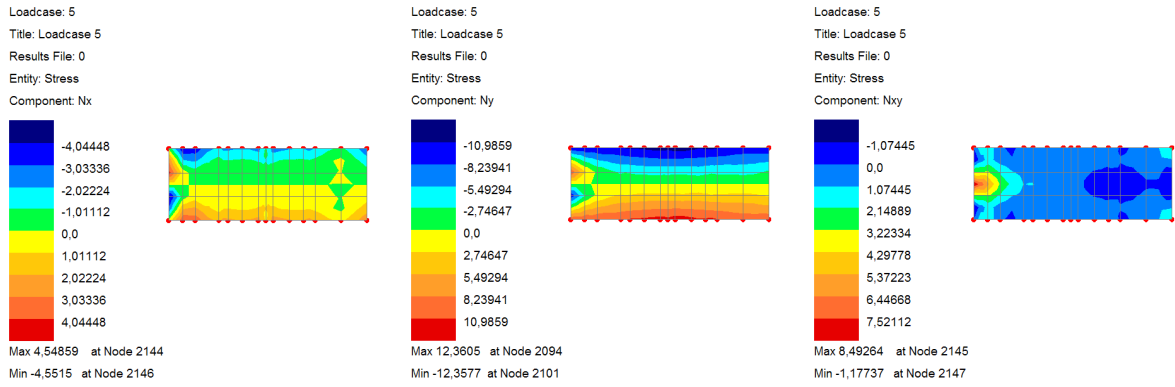
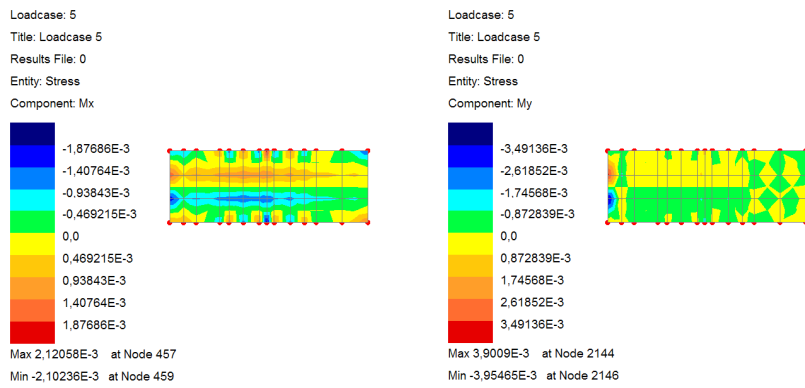


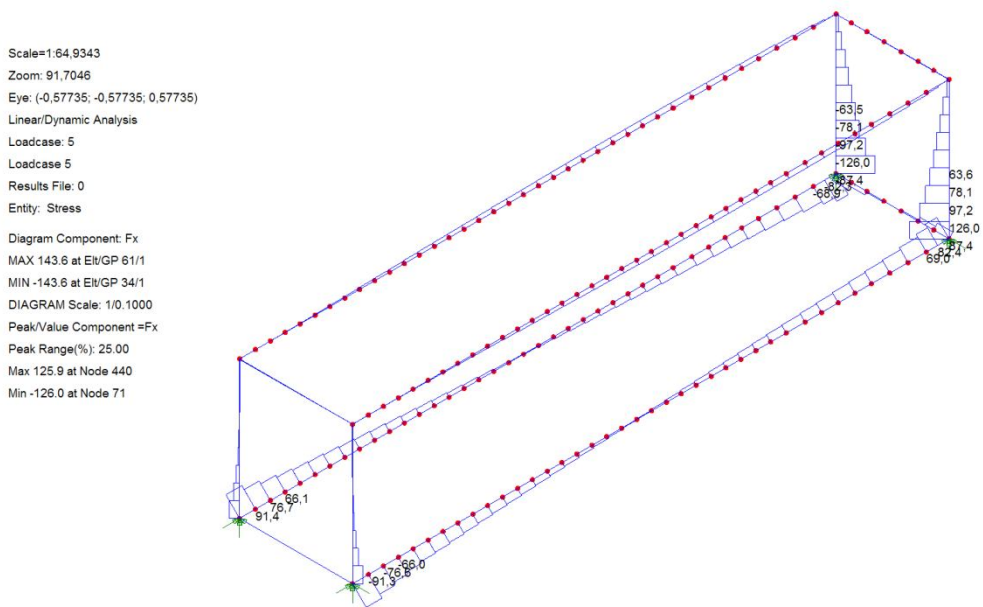
Figura A.2.1.211 – Face frontal - Esforço Mx e My



**Figura A.2.1.212 – Abertura para os garfos - FP - Esforço Nx, Ny e Nz**

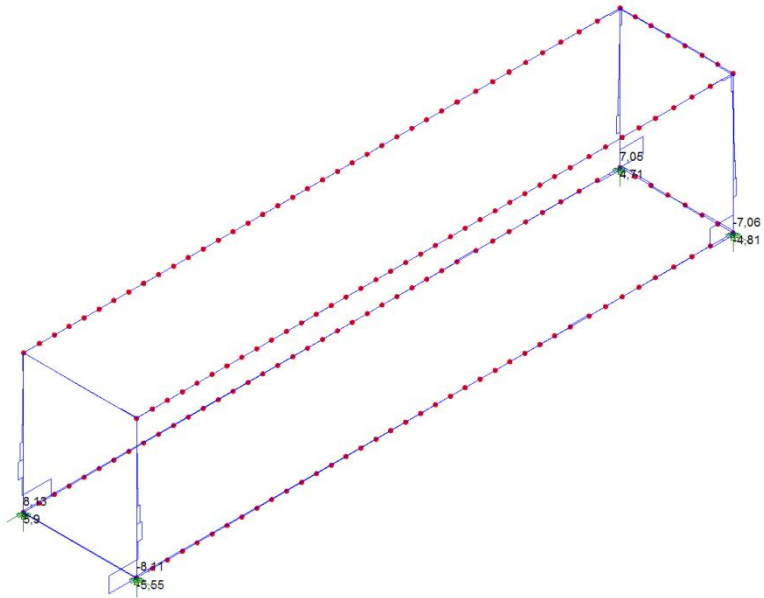


**Figura A.2.1.213 – Abertura para os garfos - FP - Esforço Mx e My**



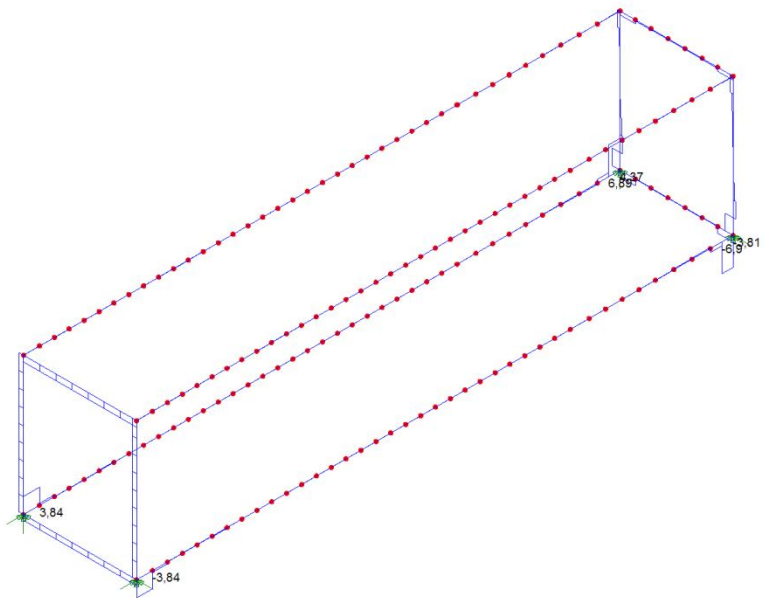
**Figura A.2.1.214 – Vista geral - Diagrama Fx**

Scale=1:64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 17.17 at Elt/GP 1/1  
 MIN -17.15 at Elt/GP 73/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 25.00  
 Max 8.127 at Node 4  
 Min -8.113 at Node 255



**Figura A.2.1.215 – Vista geral - Diagrama Fy**

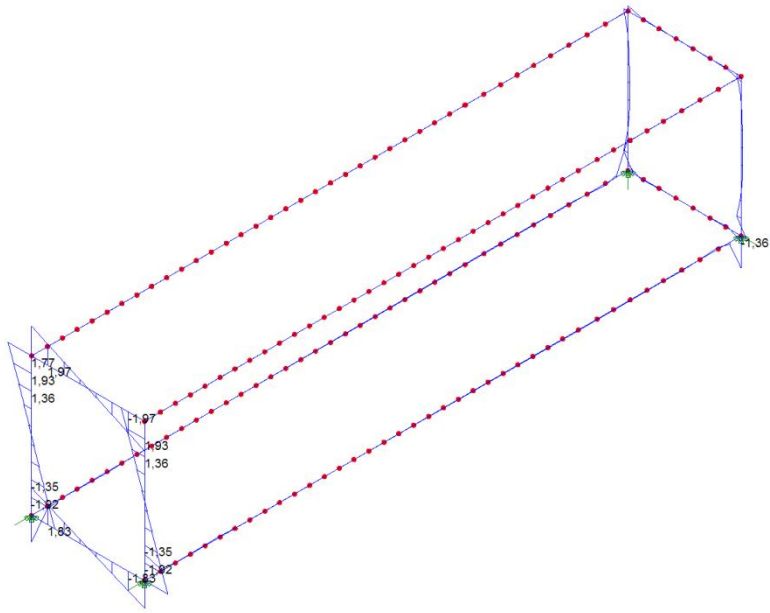
Scale=1:64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 12.26 at Elt/GP 46/1  
 MIN -12.27 at Elt/GP 731/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 30.00  
 Max 6.892 at Node 379  
 Min -6.902 at Node 1930



**Figura A.2.1.216 – Vista geral - Diagrama Fz**

Scale=1.64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress

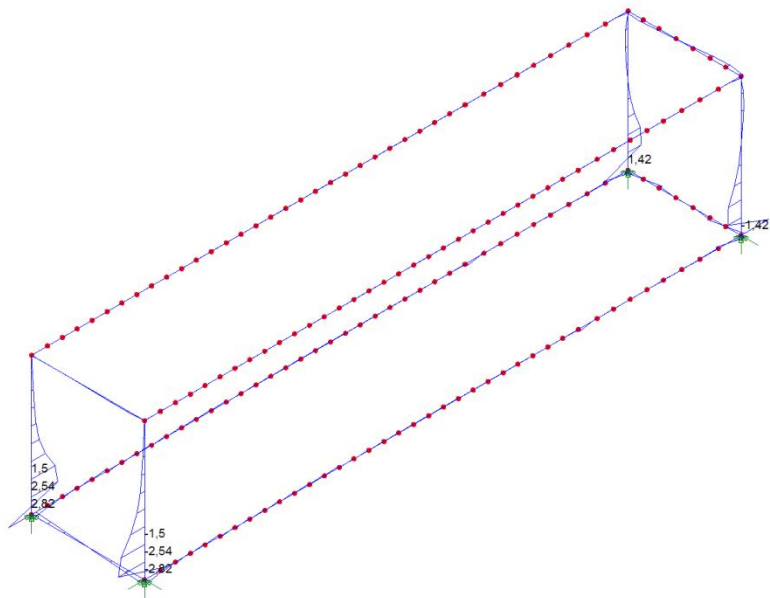
Diagram Component: My  
 MAX 2.978 at Elt/GP 46/11  
 MIN -2.983 at Elt/GP 731/11  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =My  
 Peak Range(%): 20.00  
 Max 1.969 at Node 197  
 Min -1.970 at Node 304



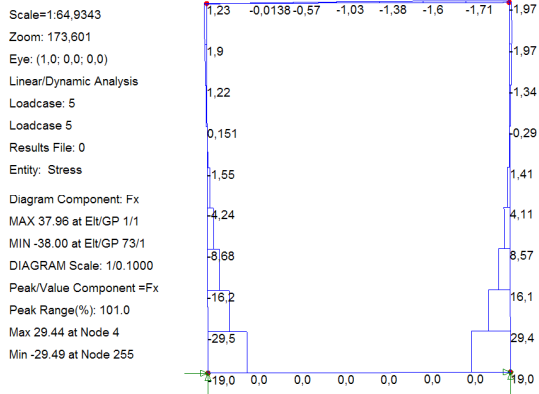
**Figura A.2.1.217 – Vista geral - Diagrama My**

Scale=1.64,9343  
 Zoom: 91,7046  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress

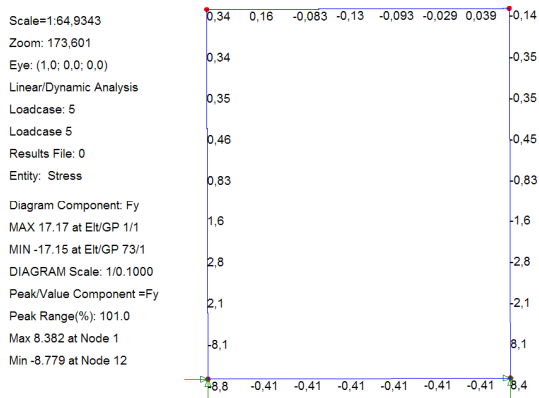
Diagram Component: Mz  
 MAX 2.986 at Elt/GP 61/1  
 MIN -2.981 at Elt/GP 34/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 25.00  
 Max 2.825 at Node 4  
 Min -2.820 at Node 255



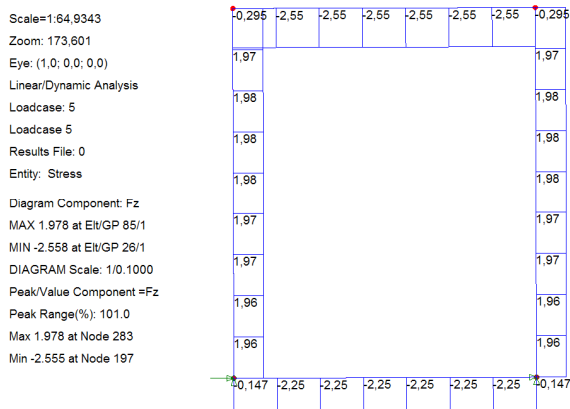
**Figura A.2.1.218 – Vista geral - Diagrama Mz**



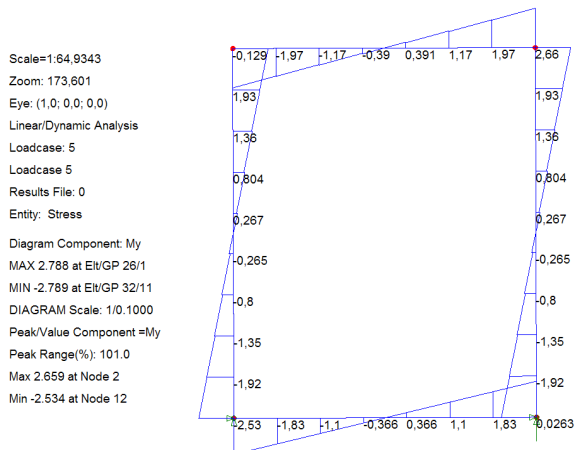
**Figura A.2.1.219 – Face da porta - Esforço Fx**



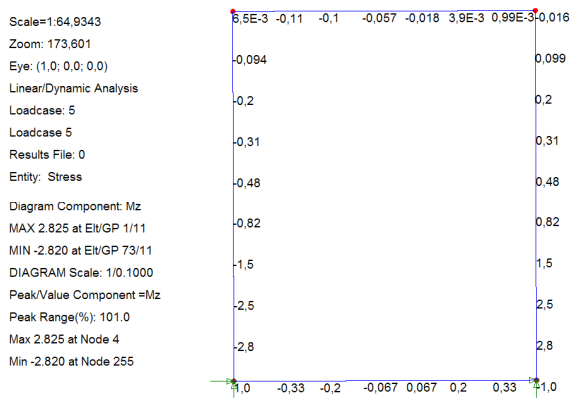
**Figura A.2.1.220 – Face da porta - Esforço Fy**



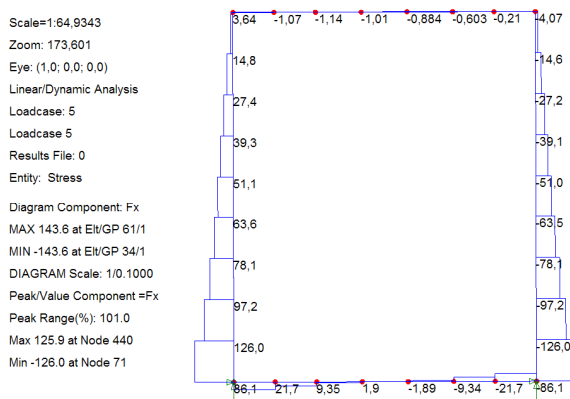
**Figura A.2.1.221 – Face da porta - Esforço Fz**



**Figura A.2.1.222 – Face da porta - Porta - Esforço My**

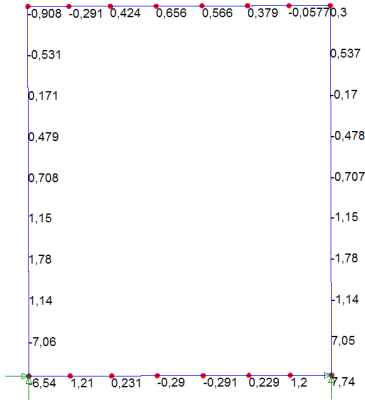


**Figura A.2.1.223 – Face da porta - Porta - Esforço Mz**



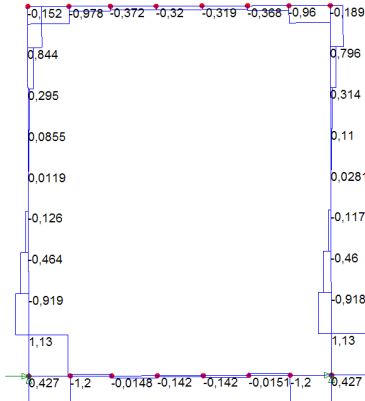
**Figura A.2.1.224 – Face frontal - Esforço Fx**

Scale=1.64,9343  
 Zoom: 173,601  
 Eye: (1,0, 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 14.27 at Elt/GP 34/1  
 MIN -14.30 at Elt/GP 61/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 101.0  
 Max 7.738 at Node 159  
 Min -7.060 at Node 440



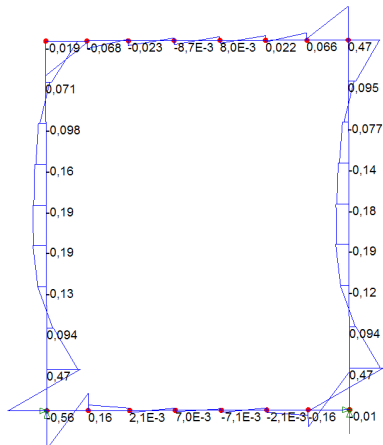
**Figura A.2.1.225 – Face frontal - Esforço Fy**

Scale=1.64,9343  
 Zoom: 173,601  
 Eye: (1,0, 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 3.405 at Elt/GP 34/1  
 MIN -2.551 at Elt/GP 2166/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 101.0  
 Max 1.134 at Node 71  
 Min -1.200 at Node 4381

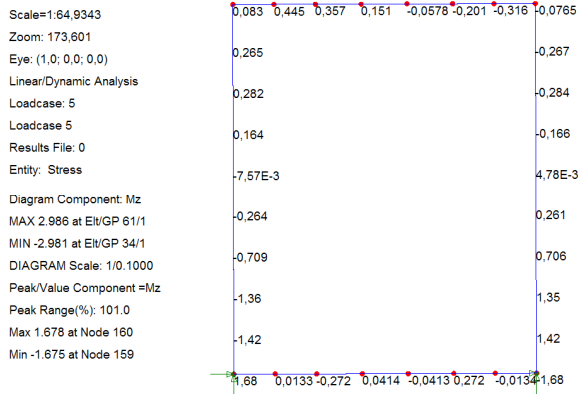


**Figura A.2.1.226 – Face frontal - Esforço Fz**

Scale=1.64,9343  
 Zoom: 173,601  
 Eye: (1,0, 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.5457 at Elt/GP 2166/1  
 MIN -0.5665 at Elt/GP 34/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 101.0  
 Max 0.4710 at Node 294  
 Min -0.5554 at Node 160

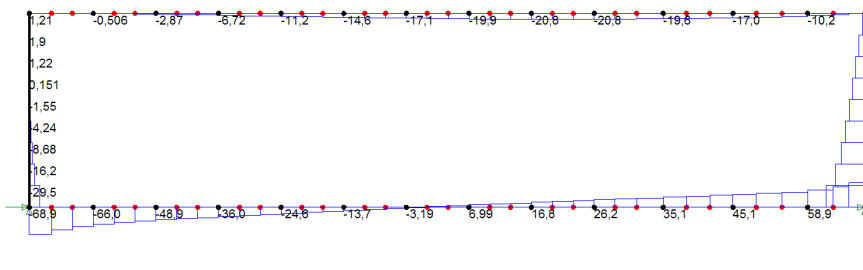


**Figura A.2.1.227 – Face frontal - Esforço My**



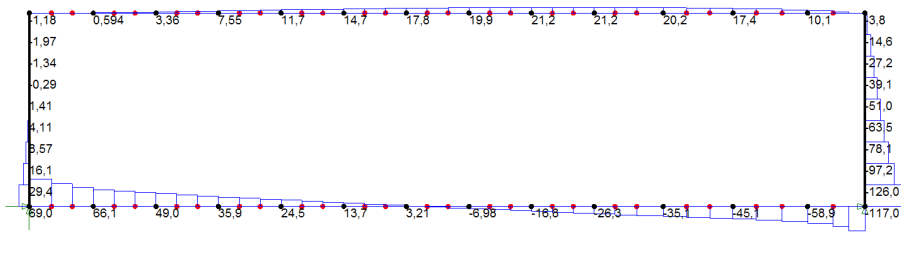
**Figura A.2.1.228 – Face frontal – Diagrama Mz**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0,-1,0,0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 143.6 at Elt/GP 61/1  
 MIN -99.82 at Elt/GP 20/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fx  
 Peak Range(%): 40.00  
 Max 125.9 at Node 440  
 Min -91.26 at Node 37



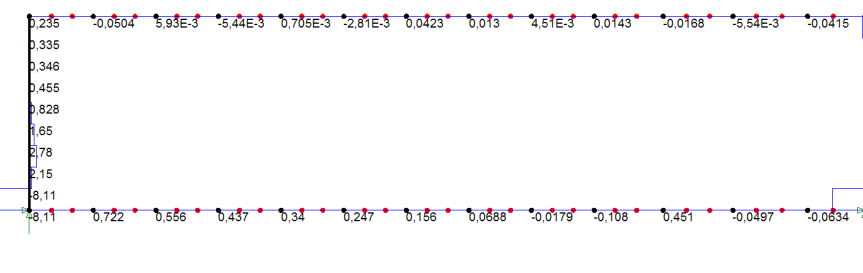
**Figura A.2.1.229 – Face lateral 1 – Diagrama Fx**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0,-1,0,0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 99.97 at Elt/GP 7/1  
 MIN -143.6 at Elt/GP 34/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fx  
 Peak Range(%): 40.00  
 Max 91.40 at Node 26  
 Min -126.0 at Node 71



**Figura A.2.1.230 – Face lateral 2 – Diagrama Fx**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0,-1,0,0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 3.369 at Elt/GP 75/1  
 MIN -17.15 at Elt/GP 73/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fy  
 Peak Range(%): 40.00  
 Max 2.782 at Node 267  
 Min -8.113 at Node 255



**Figura A.2.1.231 – Face lateral 1 – Diagrama Fy**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 17.17 at Etl/GP 1/1  
 MIN -3.372 at Etl/GP 3/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 40.00  
 Max 9.049 at Node 1  
 Min -2.782 at Node 8

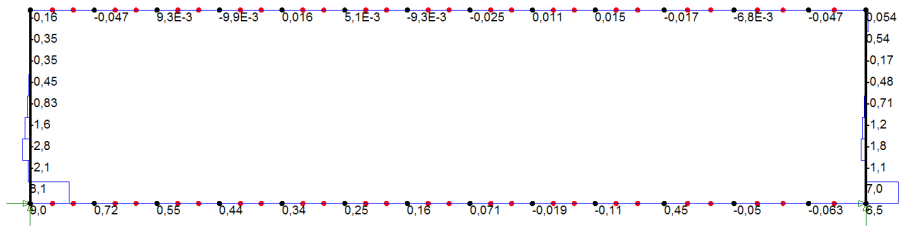


Figura A.2.1.232 – Face lateral 2 – Diagrama Fy

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 3.402 at Etl/GP 61/1  
 MIN -12.27 at Etl/GP 731/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 40.00  
 Max 1.978 at Node 283  
 Min -6.902 at Node 1930

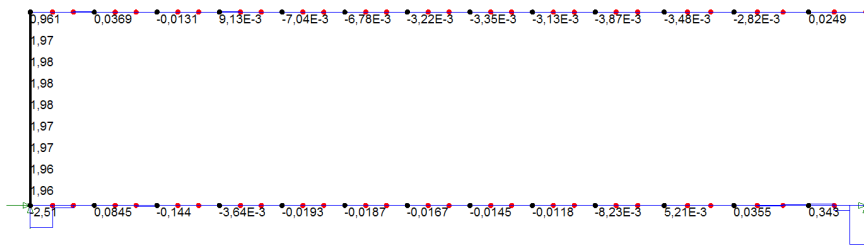


Figura A.2.1.233 – Face lateral 1 – Diagrama Fz

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 12.26 at Etl/GP 46/1  
 MIN -1.138 at Etl/GP 35/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 40.00  
 Max 7.831 at Node 159  
 Min -0.9176 at Node 77

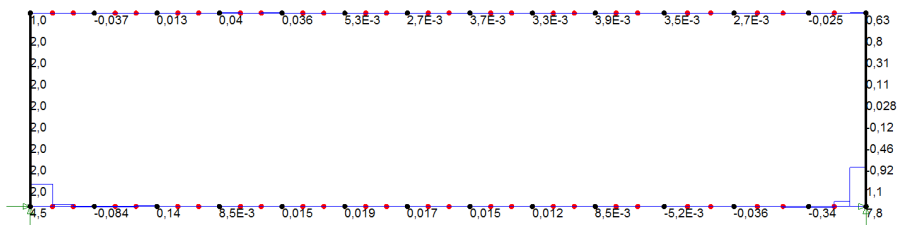


Figura A.2.1.234 – Face lateral 2 – Diagrama Fz

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 2.530 at Etl/GP 89/11  
 MIN -2.983 at Etl/GP 731/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 40.00  
 Max 1.932 at Node 291  
 Min -1.917 at Node 255

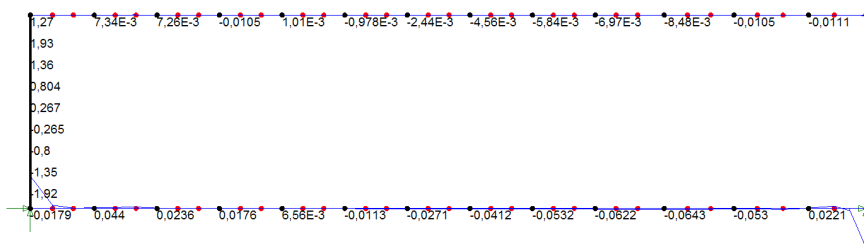
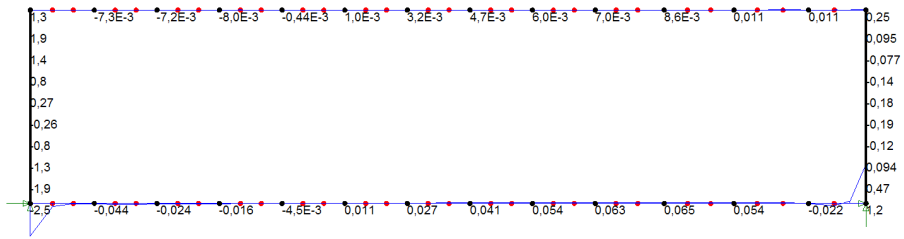


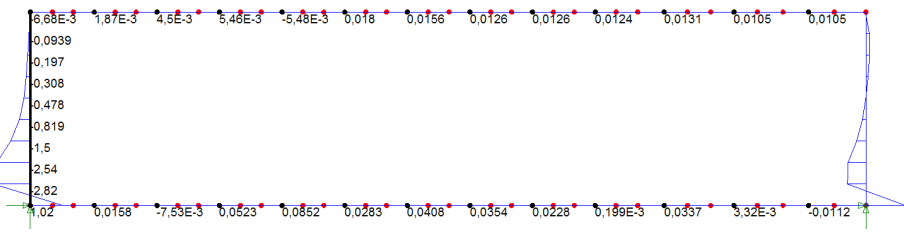
Figura A.2.1.235 – Face lateral 1 – Diagrama My

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 2.978 at Elt/GP 46/11  
 MIN -2.507 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 40.00  
 Max 1.932 at Node 42  
 Min -2.492 at Node 1



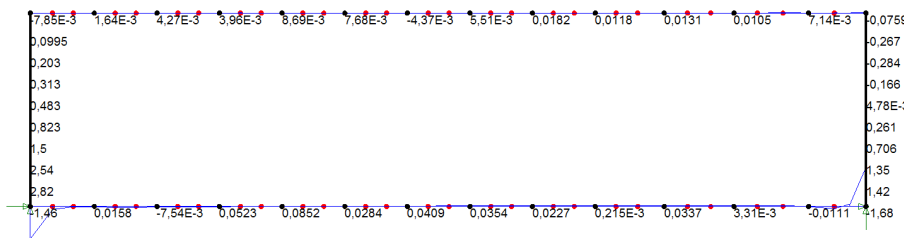
**Figura A.2.1.236 – Face lateral 2 – Diagrama My**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 2.986 at Elt/GP 61/1  
 MIN -2.820 at Elt/GP 73/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 40.00  
 Max 1.308 at Node 160  
 Min -2.820 at Node 255



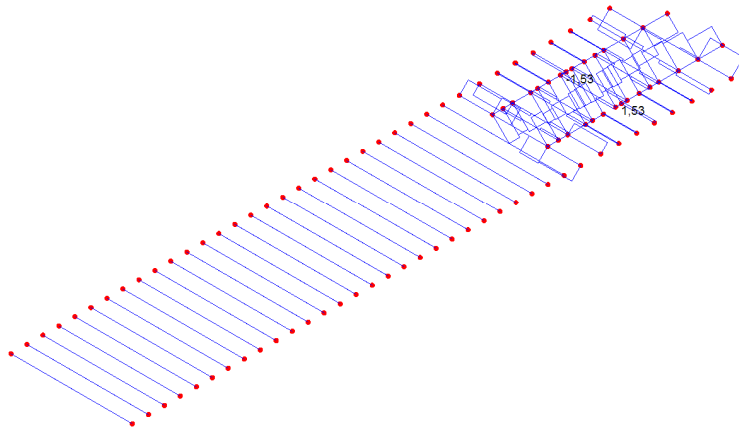
**Figura A.2.1.237 – Face lateral 1 – Diagrama Mz**

Scale=1:64,9343  
 Zoom: 90,8578  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 2.978 at Elt/GP 46/11  
 MIN -2.507 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 40.00  
 Max 2.825 at Node 4  
 Min -1.676 at Node 159



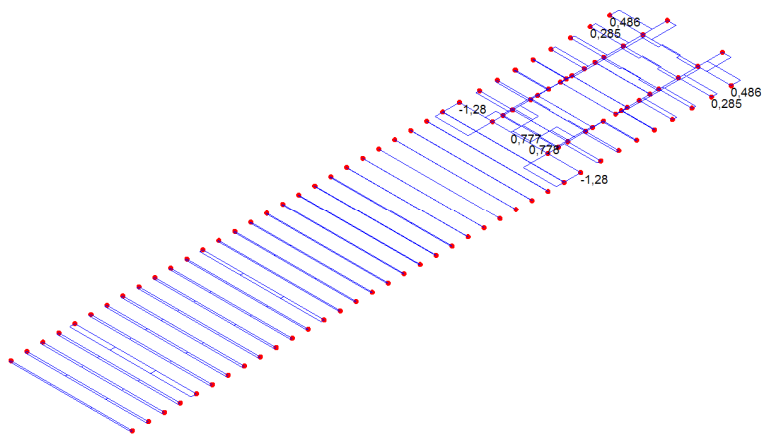
**Figura A.2.1.238 – Face lateral 2 – Diagrama Mz**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 2.265 at Elt/GP 832/1  
 MIN -2.265 at Elt/GP 835/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fx  
 Peak Range(%): 2,000  
 Max 1.532 at Node 459  
 Min -1.531 at Node 457



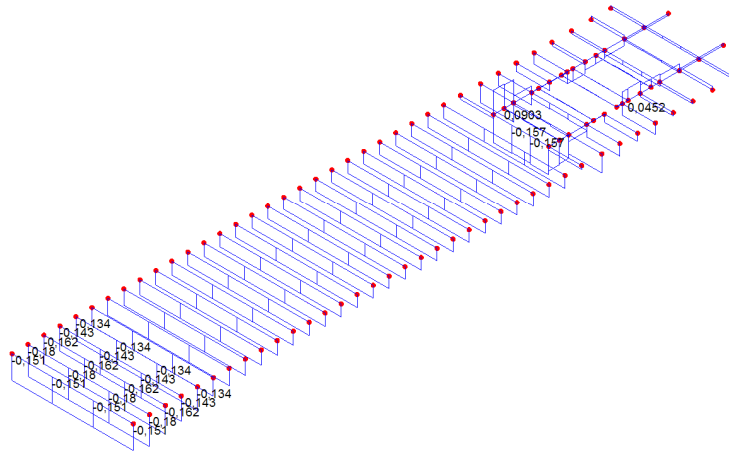
**Figura A.2.1.239 – Estrutura da base – Diagrama Fx**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 1.453 at Elt/GP 818/1  
 MIN -1.280 at Elt/GP 306/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fy  
 Peak Range(%): 25,00  
 Max 0.7776 at Node 2146  
 Min -1.280 at Node 133



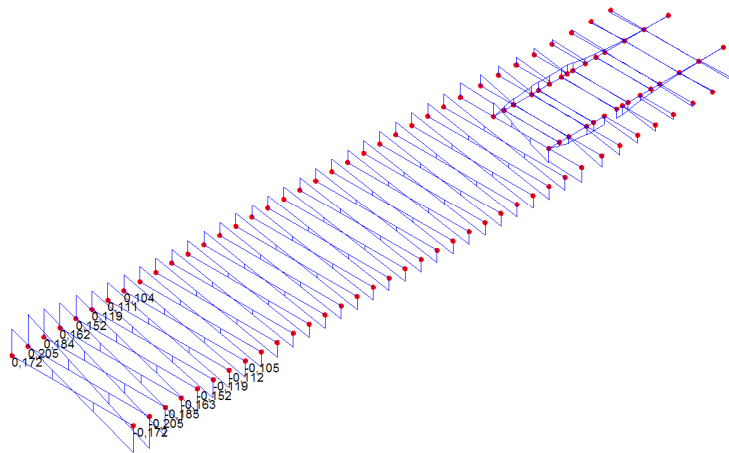
**Figura A.2.1.240 – Estrutura da base – Diagrama Fy**

Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1373 at EIt/GP 760/1  
 MIN -0.1803 at EIt/GP 2000/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 20.00  
 Max 0.9025E-01 at Node 394  
 Min -0.1803 at Node 51



**Figura A.2.1.241 – Estrutura da base – Diagrama Fz**

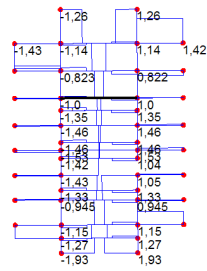
Scale=1:64,9343  
 Zoom: 98,453  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.2052 at EIt/GP 2000/1  
 MIN -0.2054 at EIt/GP 2002/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 25.00  
 Max 0.2052 at Node 51  
 Min -0.2054 at Node 52



**Figura A.2.1.242 – Estrutura da base – Diagrama My**



Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 2.265 at Elt/GP 832/1  
 MIN -2.265 at Elt/GP 835/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 30.00  
 Max 1.927 at Node 433  
 Min -1.926 at Node 431



Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.4864 at Elt/GP 304/1  
 MIN -0.4535 at Elt/GP 1383/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 42.00  
 Max 0.4864 at Node 157  
 Min -0.4535 at Node 392

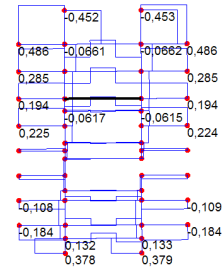


Figura A.2.1.246 – Abertura para os garfos - Perfis transversais – Diagrama Fx e Fy

Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1373 at Elt/GP 760/1  
 MIN -0.1380 at Elt/GP 757/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 38.00  
 Max 0.1373 at Node 431  
 Min -0.1380 at Node 433

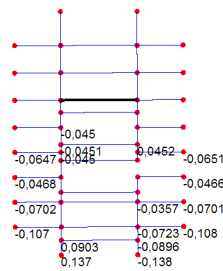
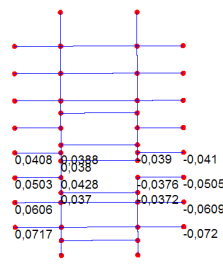


Figura A.2.1.247 – Abertura para os garfos - Perfis transversais – Diagrama Fz

Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.7170E-01 at Elt/GP 290/1  
 MIN -0.7200E-01 at Elt/GP 289/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 25.00  
 Max 0.7170E-01 at Node 135  
 Min -0.7200E-01 at Node 136



Scale=1:64,9343  
 Zoom: 96,7258  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 5  
 Loadcase 5  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.1581 at Elt/GP 304/11  
 MIN -0.1580 at Elt/GP 303/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 40.00  
 Max 0.1581 at Node 157  
 Min -0.1580 at Node 156

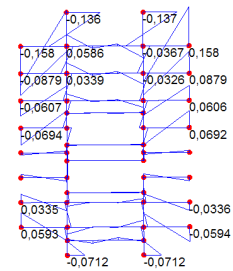


Figura A.2.1.248 – Abertura para os garfos - Perfis transversais – Diagrama My e Mz

## Caso de carga 5

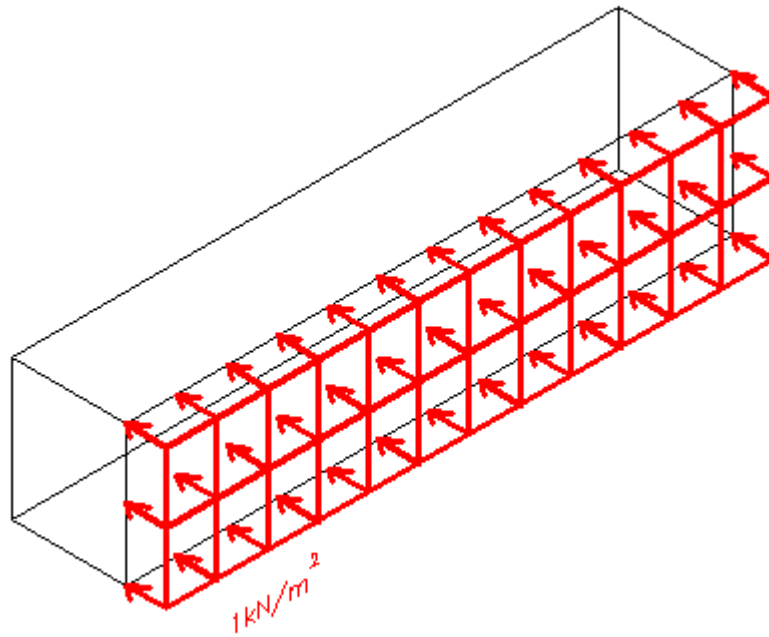


Figura A.2.1.249 - Caso de carga 5.

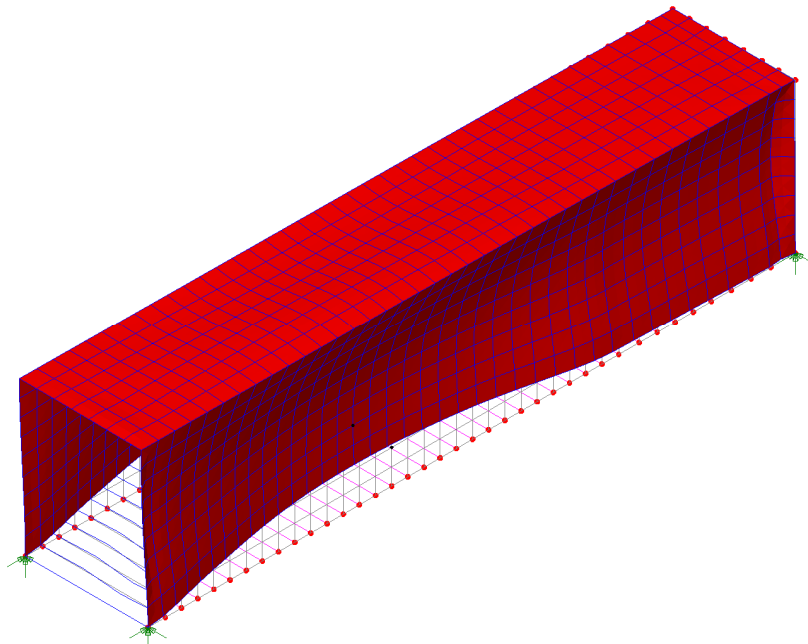
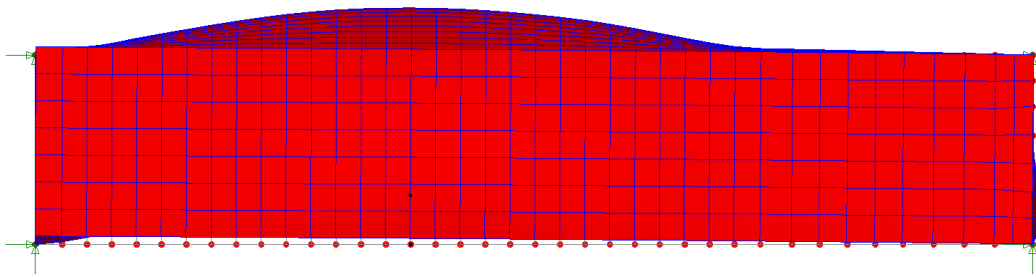
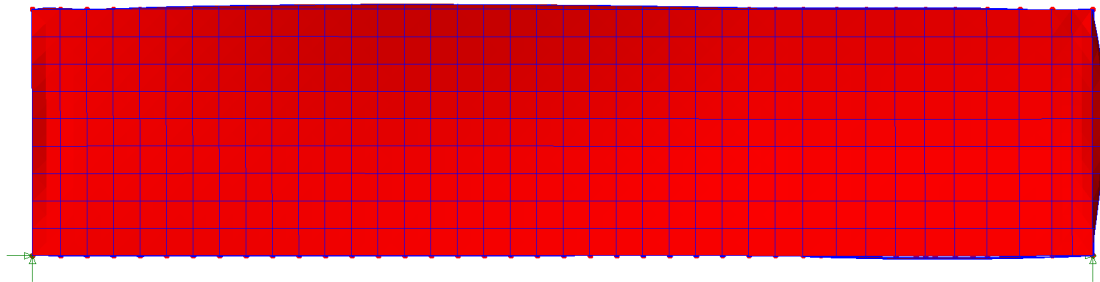


Figura A.2.1.250 - Vista geral da deformada

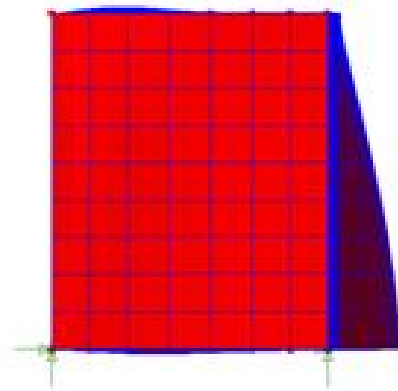
Deslocamento máximo: 16,69 mm.



**Figura A.2.1.251 - Vista da cobertura deformada.**



**Figura A.2.1.252 - Vista da face lateral da deformada.**



**Figura A.2.1.253 - Vista da face da porta deformada.**

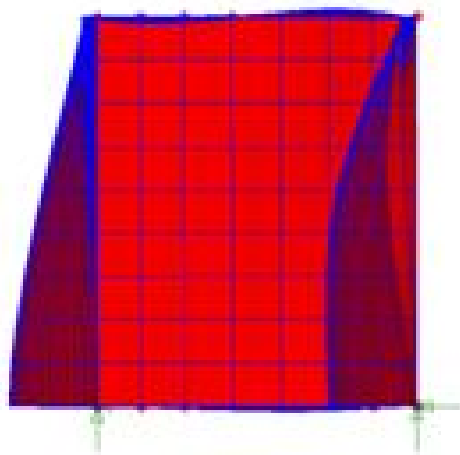


Figura A.2.1.254 – Vista da face frontal deformada

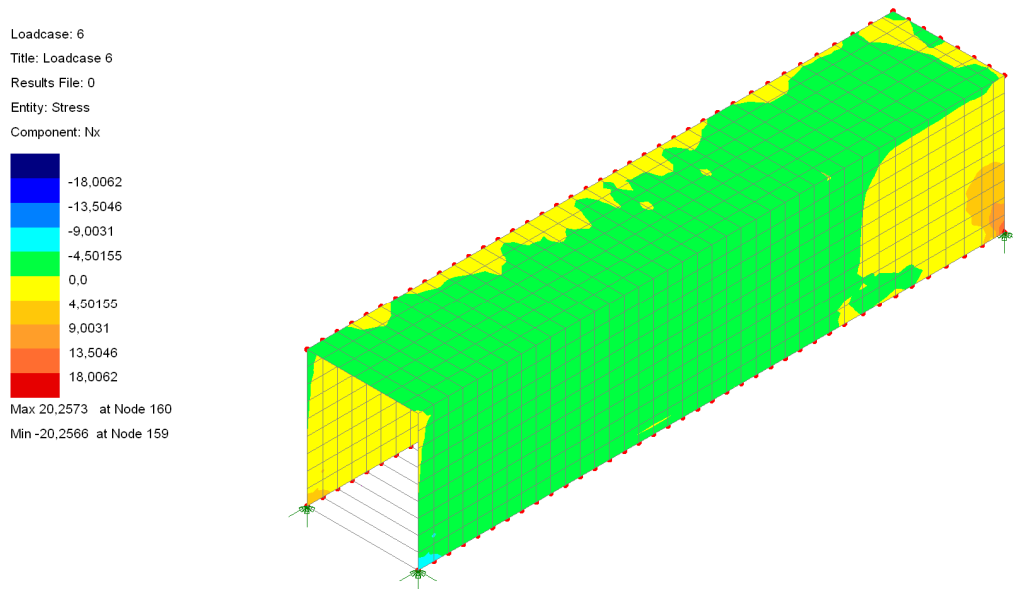
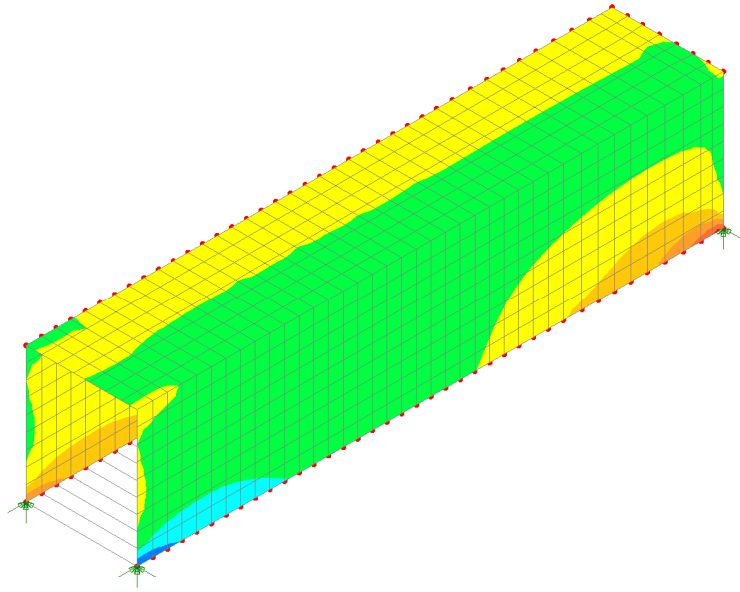


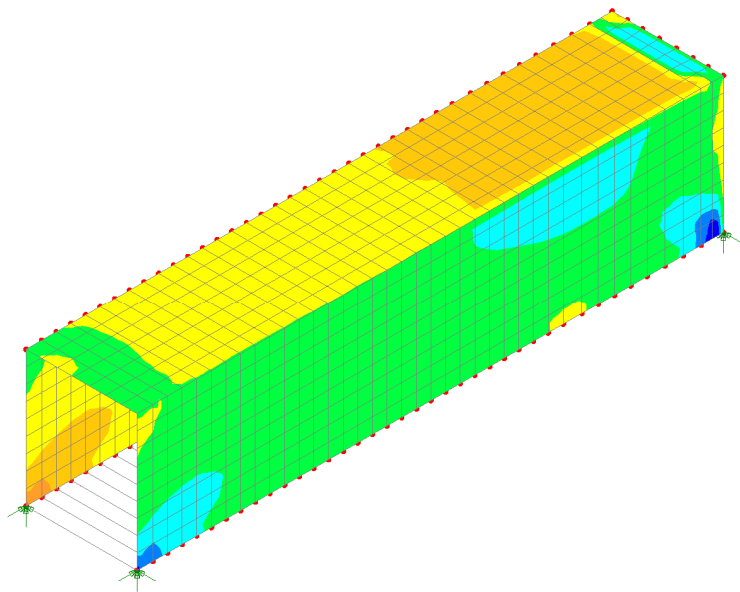
Figura A.2.1.255 - Vista geral – Esforço Nx

Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -34,3818  
 -25,7863  
 -17,1909  
 -8,59545  
 0,0  
 8,59545  
 17,1909  
 25,7863  
 34,3818  
 Max 38,6561 at Node 1931  
 Min -38,7029 at Node 380



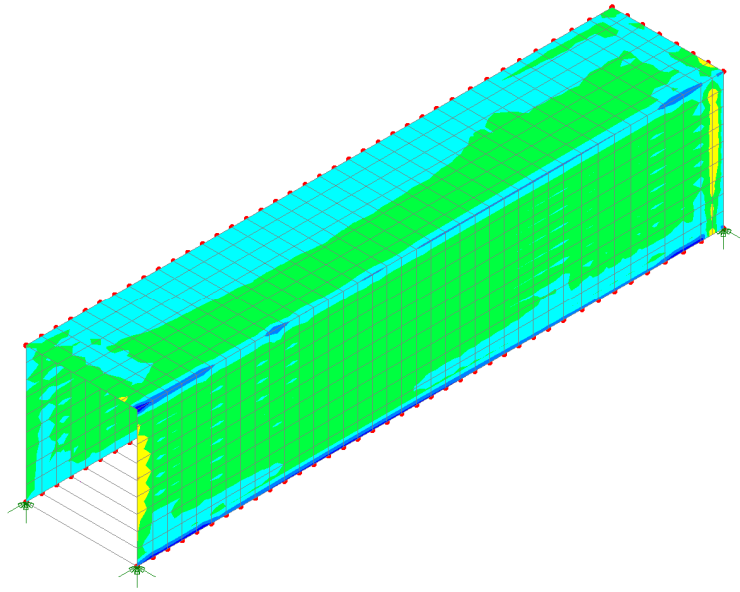
**Figura A.2.1.256 - Vista geral – Esforço Ny**

Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -16,0367  
 -12,0276  
 -8,01837  
 -4,00919  
 -1,77636E-15  
 4,00919  
 8,01837  
 12,0276  
 16,0367  
 Max 18,4846 at Node 159  
 Min -17,5981 at Node 2145



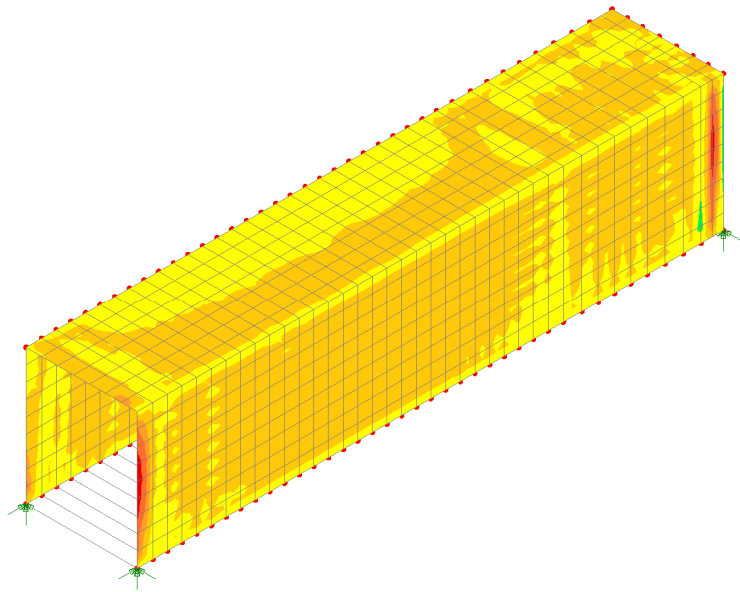
**Figura A.2.1.257 - Vista geral – Esforço Nxy**

Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -0,0117553  
 -7,83687E-3  
 -3,91844E-3  
 0,0  
 3,91844E-3  
 7,83687E-3  
 0,0117553  
 0,0156737  
 0,0195922  
 Max 0,0205812 at Node 419  
 Min -0,0146847 at Node 2146



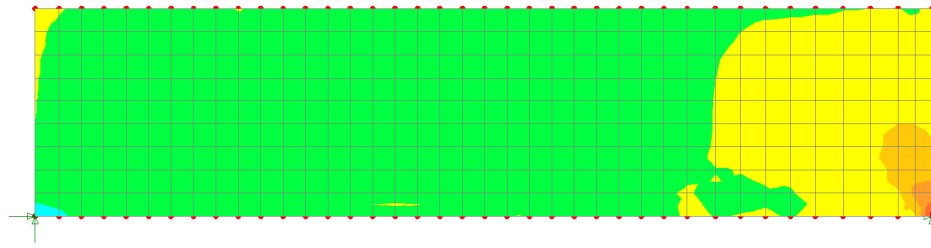
**Figura A.2.1.258 - Vista geral – Esforço Mx**

Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: My  
 -0,0295295  
 -0,0236236  
 -0,0177177  
 -0,0118118  
 -5,9059E-3  
 0,0  
 5,9059E-3  
 0,0118118  
 0,0177177  
 Max 0,0224346 at Node 128  
 Min -0,0307185 at Node 2146



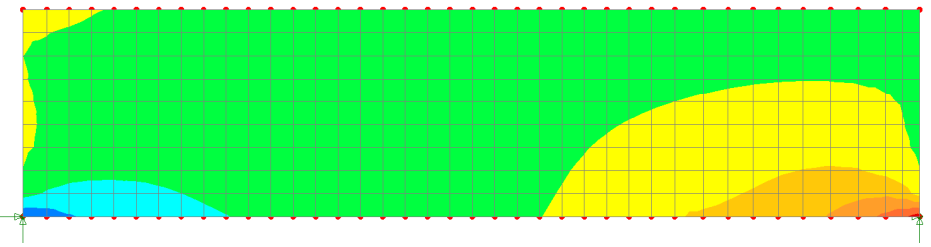
**Figura A.2.1.259 - Vista geral – Esforço My**

Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: Nx  
 -20,2186  
 -15,164  
 -10,1093  
 -5,05465  
 -1,77636E-15  
 5,05465  
 10,1093  
 15,164  
 20,2186  
 Max 22,7397 at Node 160  
 Min -22,7521 at Node 159



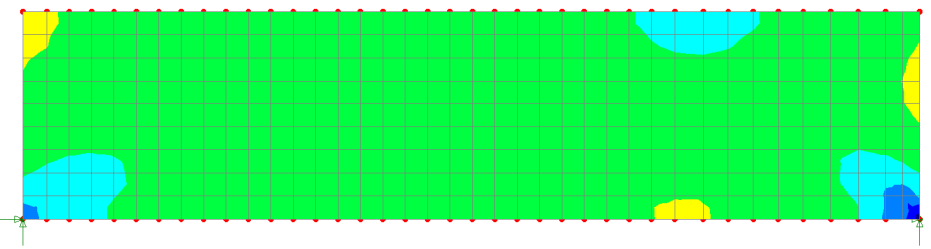
**Figura A.2.1.260 – Vista da face lateral – Esforço Nx**

Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -36,864  
 -27,648  
 -18,432  
 -9,216  
 3,55271E-15  
 9,216  
 18,432  
 27,648  
 36,864  
 Max 41,4548 at Node 160  
 Min -41,4893 at Node 159



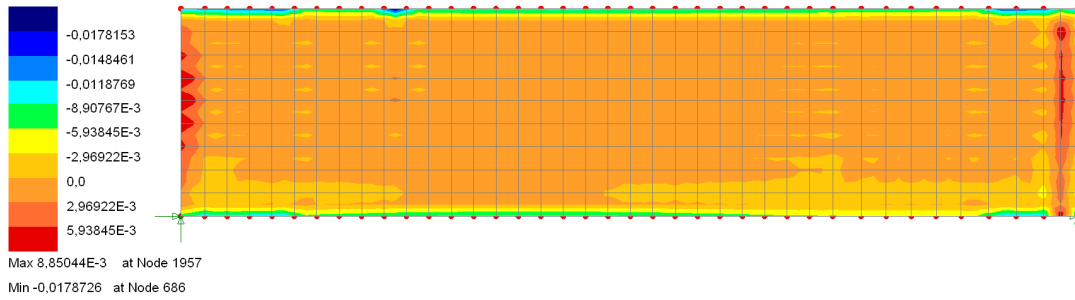
**Figura A.2.1.261 – Vista da face lateral – Esforço Ny**

Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -18,4041  
 -13,8031  
 -9,20204  
 -4,60102  
 0,0  
 4,60102  
 9,20204  
 13,8031  
 18,4041  
 Max 20,4383 at Node 159  
 Min -20,9709 at Node 160



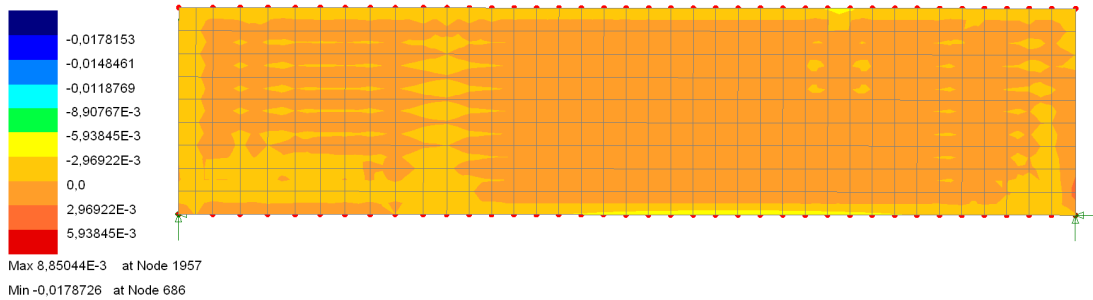
**Figura A.2.1.262 – Vista da face lateral – Esforço Nxy**

Loadcase: 6  
Title: Loadcase 6  
Results File: 0  
Entity: Stress  
Component: Mx



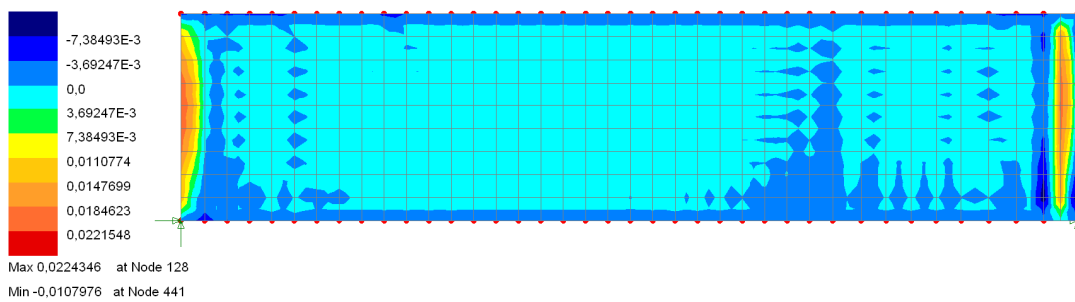
**Figura A.2.1.263 – Vista da face lateral – Esforço Mx**

Loadcase: 6  
Title: Loadcase 6  
Results File: 0  
Entity: Stress  
Component: Mx



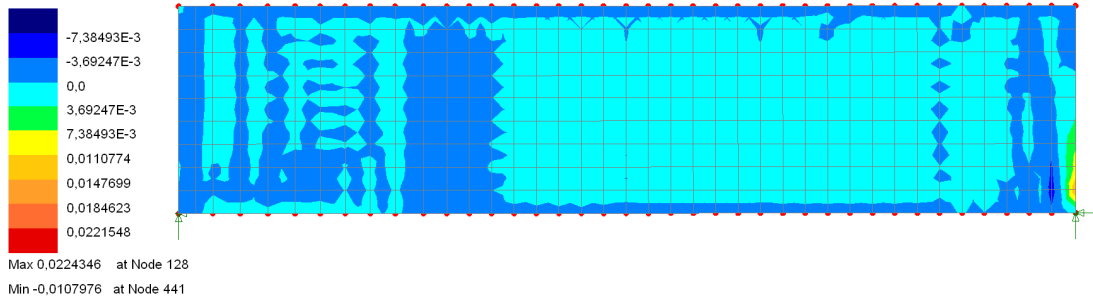
**Figura A.2.1.264 – Vista da face lateral 2 – Esforço Mx**

Loadcase: 6  
Title: Loadcase 6  
Results File: 0  
Entity: Stress  
Component: My



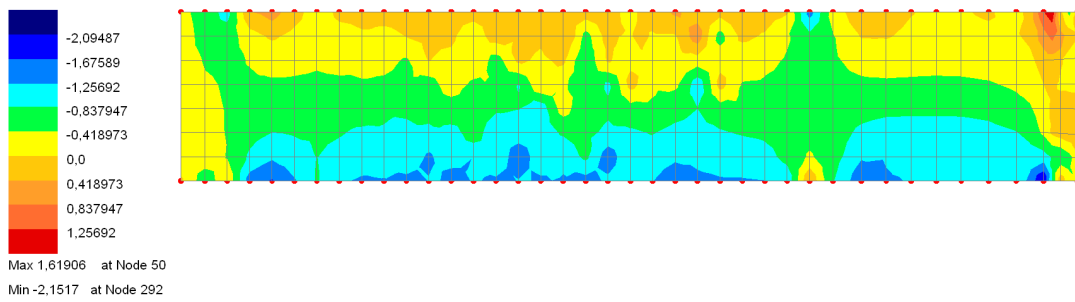
**Figura A.2.1.265 – Vista da face lateral 1 – Esforço My**

Loadcase: 6  
Title: Loadcase 6  
Results File: 0  
Entity: Stress  
Component: My



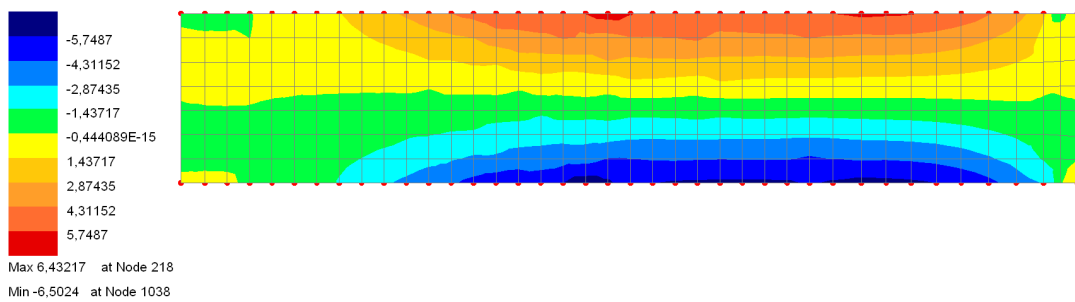
**Figura A.2.1.266 – Vista da face lateral 2 – Esforço My**

Loadcase: 6  
Title: Loadcase 6  
Results File: 0  
Entity: Stress  
Component: Nx



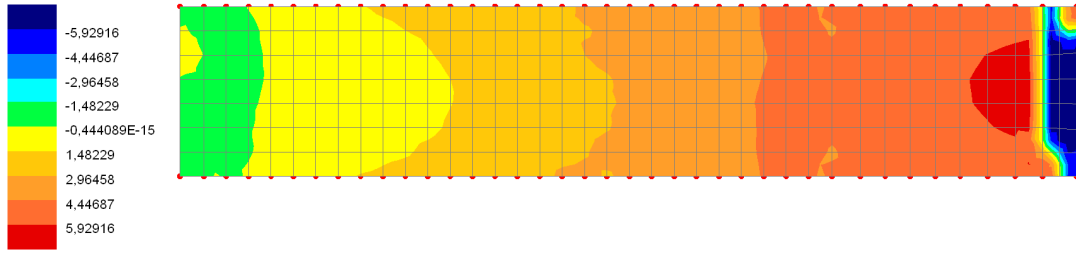
**Figura A.2.1.267 – Cobertura – Esforço Nx**

Loadcase: 6  
Title: Loadcase 6  
Results File: 0  
Entity: Stress  
Component: Ny



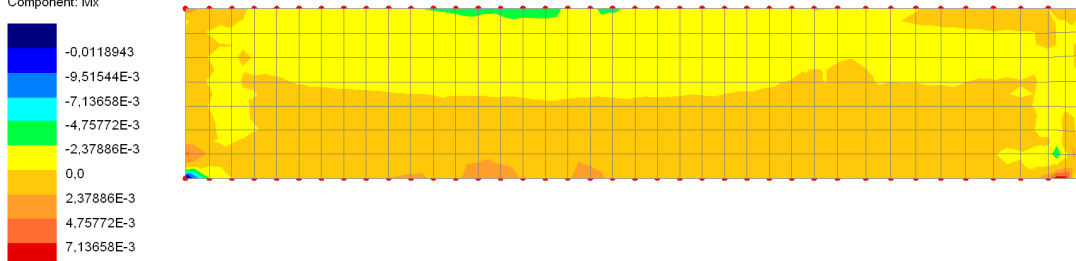
**Figura A.2.1.268 - Cobertura – Esforço Ny**

Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 Max 6,50808 at Node 2868  
 Min -6,83254 at Node 2051



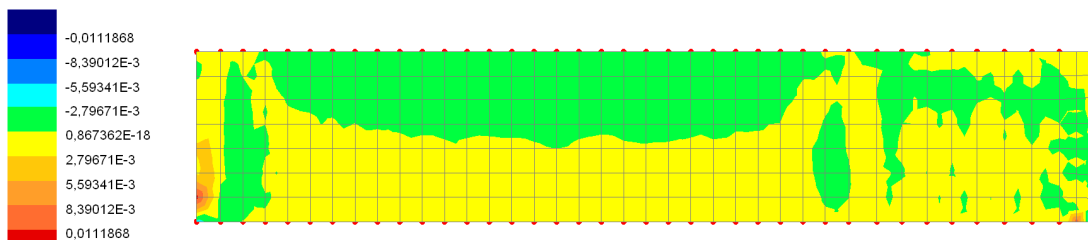
**Figura A.2.1.269 - Cobertura – Esforço Nxy**

Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 Max 8,47524E-3 at Node 1924  
 Min -0,0129345 at Node 13

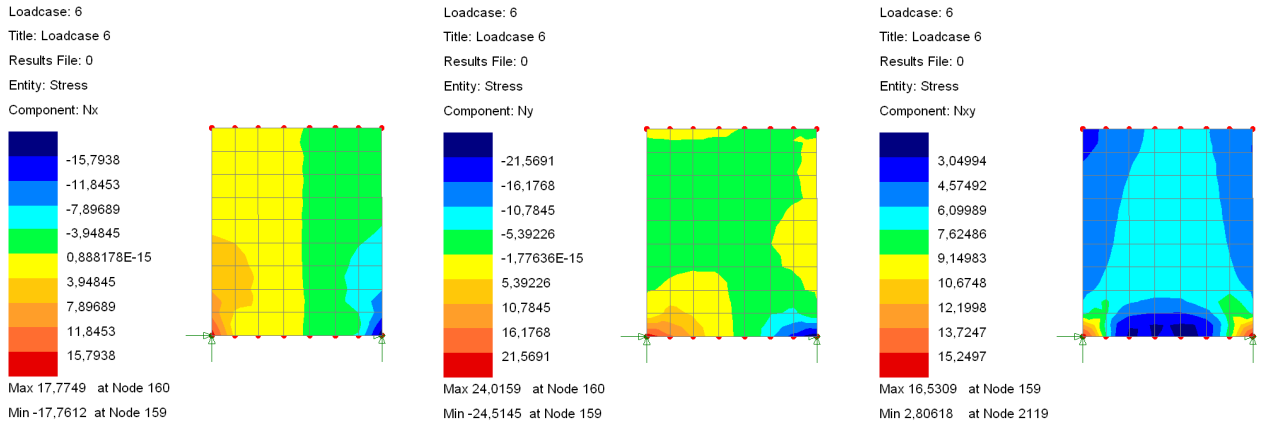


**Figura A.2.1.270 - Cobertura – Esforço Mx**

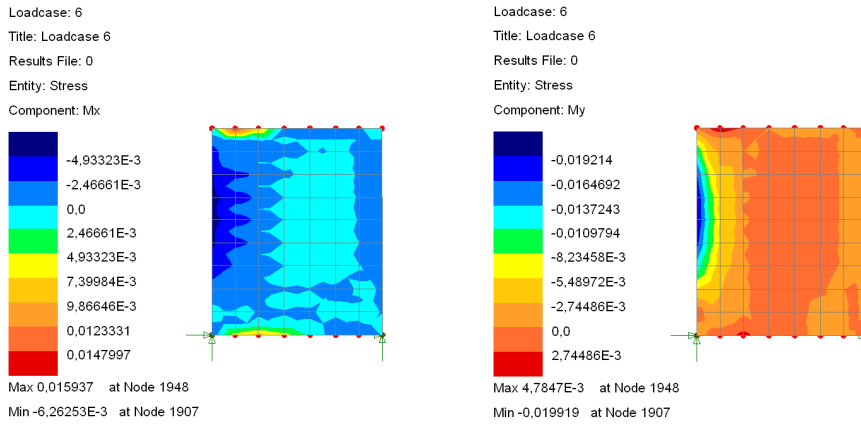
Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: My  
 Max 0,0121013 at Node 304  
 Min -0,0130691 at Node 296



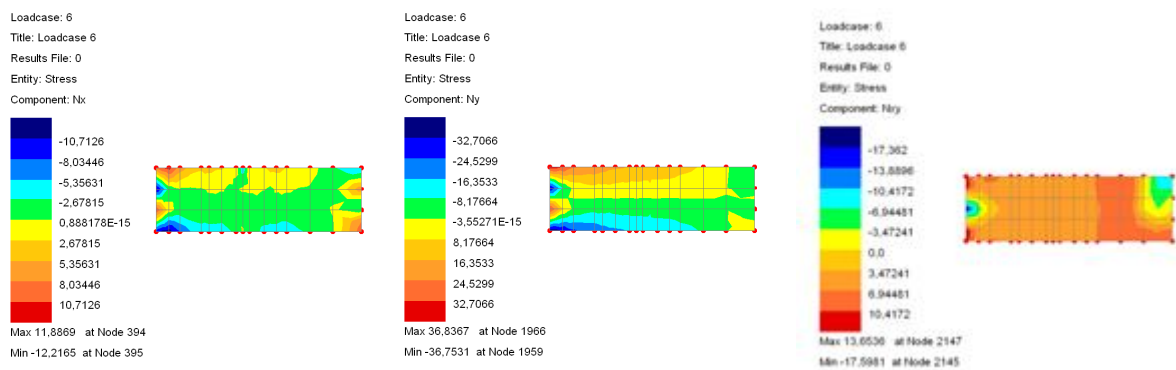
**Figura A.2.1.271 - Cobertura – Esforço My**



**Figura A.2.1.272 – Face frontal – Esforço Nx, Ny e Nxy**

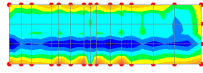


**Figura A.2.1.273 – Face frontal – Esforço Mx e My**

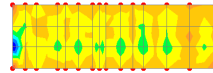


**Figura A.2.1.274 – Abertura para os garfos - FP – Esforço Nx, Ny e Nz**

Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -0,0117553  
 -7,83687E-3  
 -3,91844E-3  
 0,0  
 3,91844E-3  
 7,83687E-3  
 0,0117553  
 0,0156737  
 0,0195922  
 Max 0,0205812 at Node 419  
 Min -0,0146847 at Node 2146

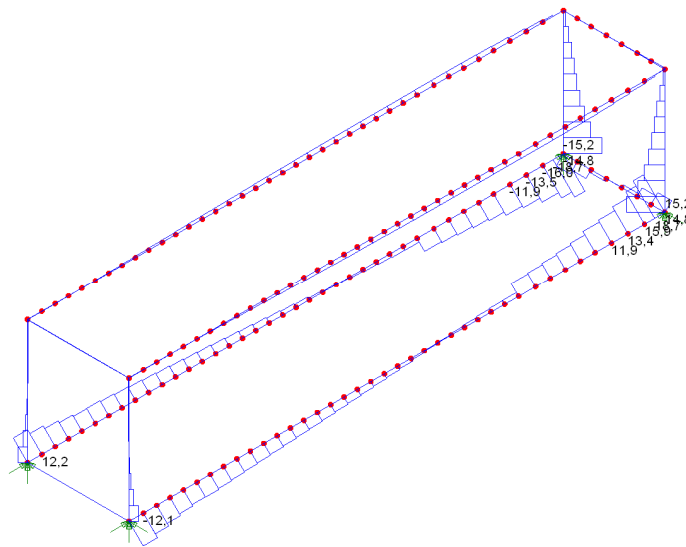


Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: My  
 -0,028316  
 -0,0226528  
 -0,0169896  
 -0,0113264  
 -5,66321E-3  
 0,0  
 5,66321E-3  
 0,0113264  
 0,0169896  
 Max 0,0202503 at Node 433  
 Min -0,0307185 at Node 2146



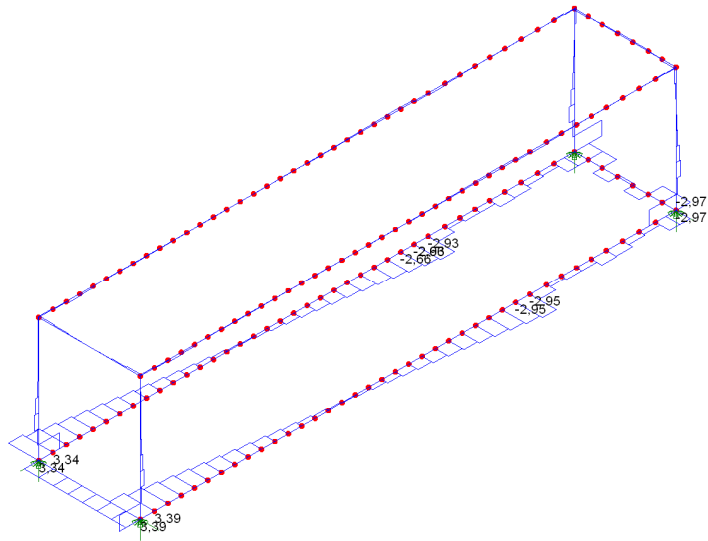
**Figura A.2.1.275 – Abertura para os garfos - FP – Esforço Nx e Ny**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 20.12 at Elk/GP 731/1  
 MIN -20.07 at Elk/GP 46/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fx  
 Peak Range(%): 20,00  
 Max 18.72 at Node 1930  
 Min -18.72 at Node 379



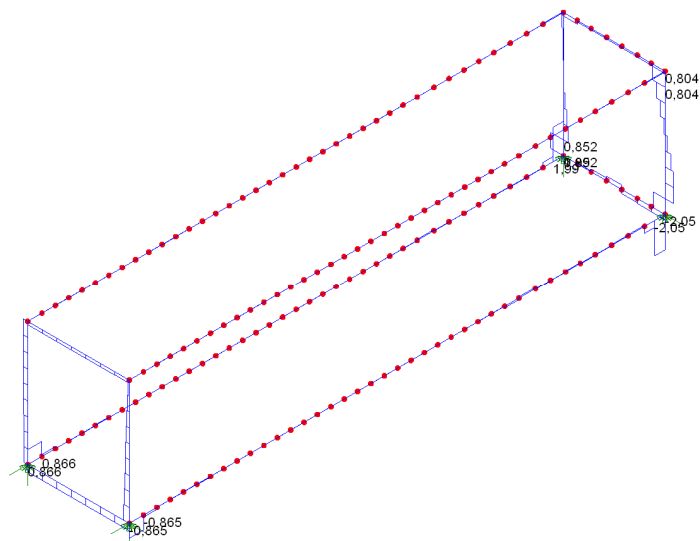
**Figura A.2.1.276 – Vista geral – Diagrama Fx**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 3.386 at Elt/GP 20/1  
 MIN -2.973 at Elt/GP 120/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 5.000  
 Max 3.386 at Elt/GP 20/1  
 Min -2.973 at Elt/GP 120/1



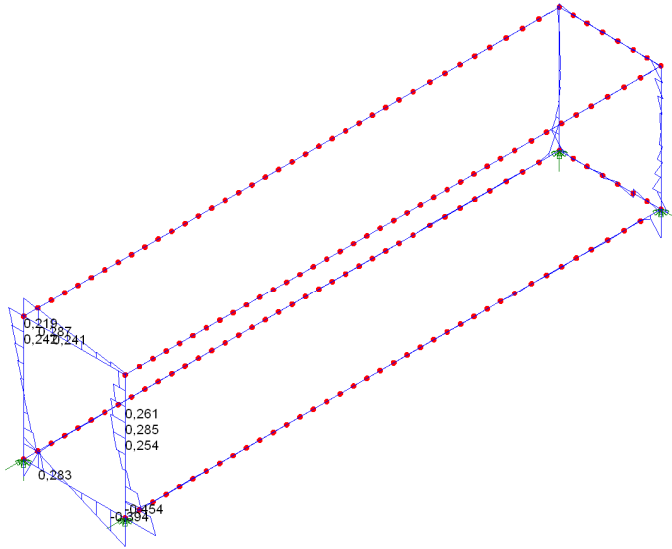
**Figura A.2.1.277 – Vista geral – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 1.993 at Elt/GP 46/1  
 MIN -2.048 at Elt/GP 731/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 30.00  
 Max 1.993 at Elt/GP 46/1  
 Min -2.048 at Elt/GP 731/1



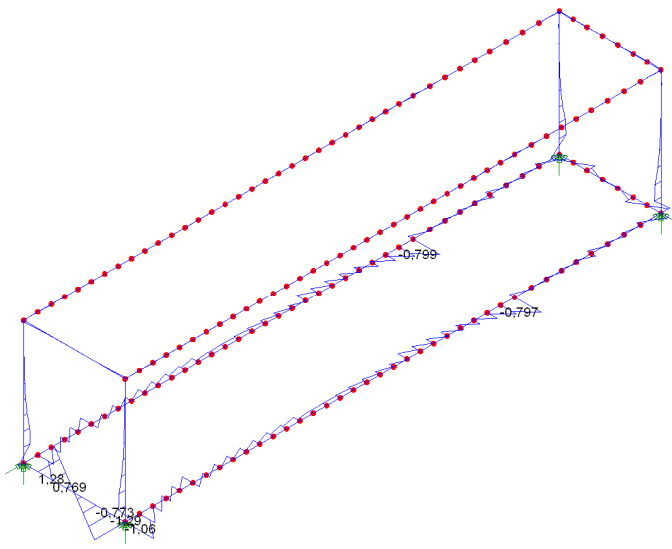
**Figura A.2.1.278 – Vista geral – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.5210 at Elt/GP 46/11  
 MIN -0.6594 at Elt/GP 41/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10.00  
 Max 0.2869 at Node 197  
 Min -0.4541 at Node 104



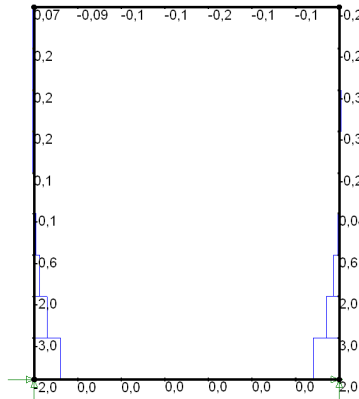
**Figura A.2.1.279 – Vista geral – Diagrama My**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 1.797 at Elt/GP 11/1  
 MIN -1.801 at Elt/GP 2189/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 20.00  
 Max 1.283 at Node 23  
 Min -1.287 at Node 4543

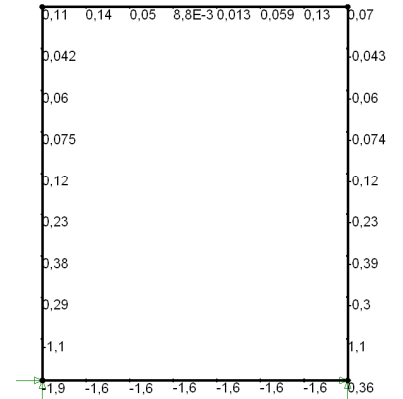


**Figura A.2.1.280 – Vista geral – Diagrama Mz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 4.381 at Elt/GP 1/1  
 MIN -4.382 at Elt/GP 41/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 10.00  
 Max 3.272 at Node 4  
 Min -3.276 at Node 104

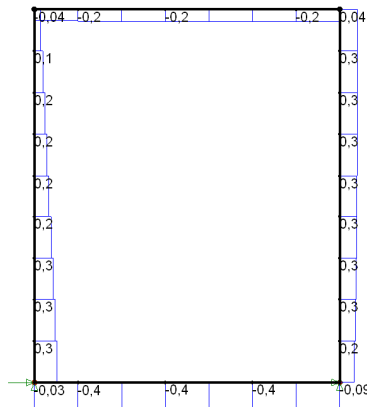


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 2.309 at Elt/GP 1/1  
 MIN -2.297 at Elt/GP 41/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 10.00  
 Max 1.099 at Node 4  
 Min -1.939 at Node 12



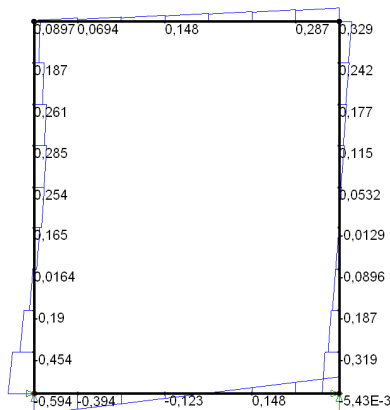
**Figura A.2.1.281 – Face da porta – Diagrama Fx e Fy**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.3630 at Elt/GP 41/1  
 MIN -0.4160 at Elt/GP 2187/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fz  
 Peak Range(%): 10.00  
 Max 0.3461 at Node 104  
 Min -0.4160 at Node 4541

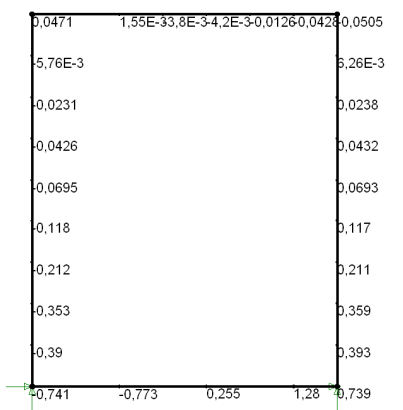


**Figura A.2.1.282 – Face da porta – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.4184 at Elt/GP 11/1  
 MIN -0.6594 at Elt/GP 41/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =My  
 Peak Range(%): 10.00  
 Max 0.3291 at Node 2  
 Min -0.5941 at Node 12

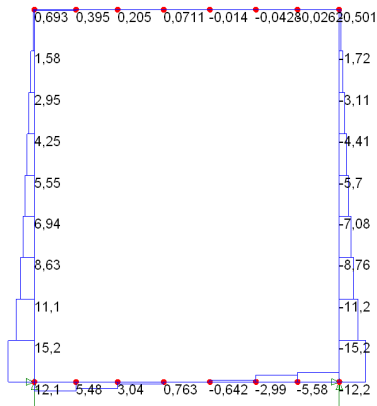


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 1.797 at Elt/GP 11/1  
 MIN -1.801 at Elt/GP 2189/11  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 10.00  
 Max 1.283 at Node 23  
 Min -1.287 at Node 4543

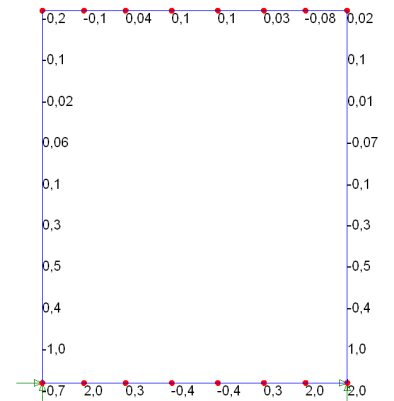


**Figura A.2.1.283 – Face da porta – Diagrama My e Mz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 17.90 at Elt/GP 120/1  
 MIN -17.90 at Elt/GP 65/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 101.0  
 Max 15.22 at Node 441  
 Min -15.25 at Node 287

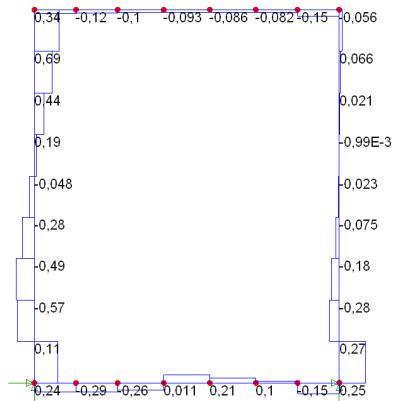


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 3.004 at Elt/GP 65/1  
 MIN -2.973 at Elt/GP 120/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 101.0  
 Max 2.299 at Node 159  
 Min -1.399 at Node 441



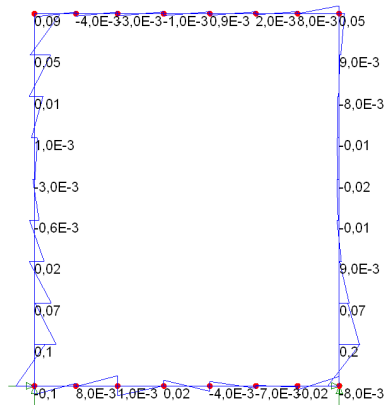
**Figura A.2.1.284 – Face frontal – Diagrama Fx e Fy**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.8523 at Elt/GP 65/1  
 MIN -0.5867 at Elt/GP 122/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fz  
 Peak Range(%): 101.0  
 Max 0.6894 at Node 1913  
 Min -0.5732 at Node 1901

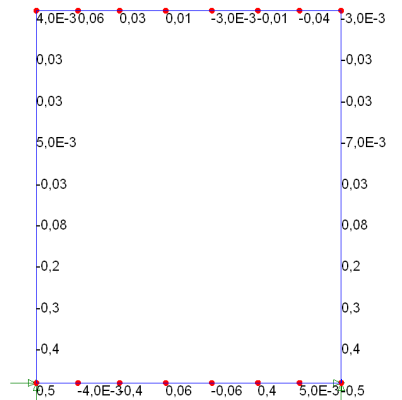


**Figura A.2.1.285 – Face frontal – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.2140 at Elt/GP 136/11  
 MIN -0.1507 at Elt/GP 120/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =My  
 Peak Range(%): 101.0  
 Max 0.1664 at Node 287  
 Min -0.1111 at Node 160



Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.5308 at Elt/GP 120/1  
 MIN -0.5350 at Elt/GP 65/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 101.0  
 Max 0.4964 at Node 160  
 Min -0.4984 at Node 159



**Figura A.2.1.286 – Face frontal – Diagrama My e Mz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 20.12 at Elk/GP 731/1  
 MIN -13.17 at Elk/GP 20/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 19.01 at Node 160  
 Min -12.13 at Node 37

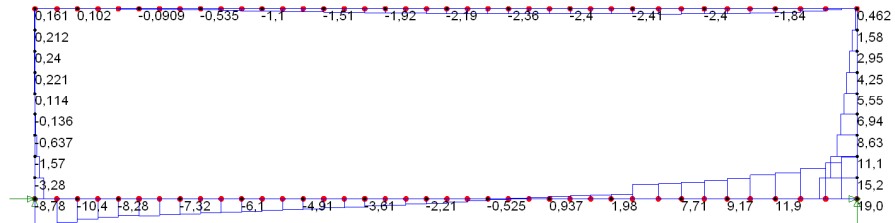


Figura A.2.1.287 – Face lateral 1 – Diagrama Fx

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 13.21 at Elk/GP 7/1  
 MIN -20.07 at Elk/GP 46/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 12.17 at Node 26  
 Min -18.98 at Node 159

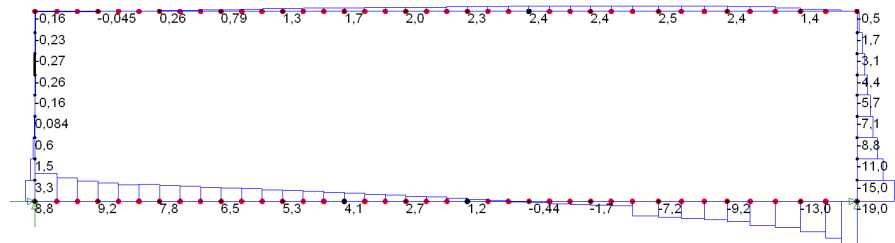


Figura A.2.1.288 – Face lateral 2 – Diagrama Fx

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 3.386 at Elk/GP 20/1  
 MIN -2.973 at Elk/GP 120/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 10,00  
 Max 3.161 at Node 37  
 Min -2.801 at Node 130

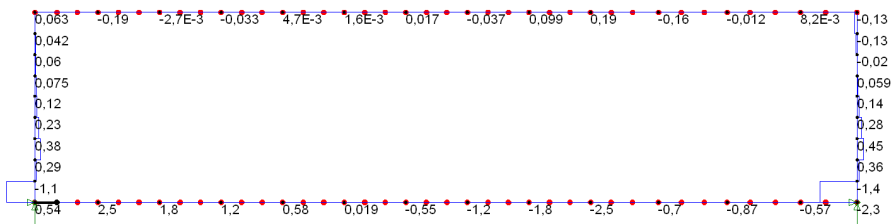
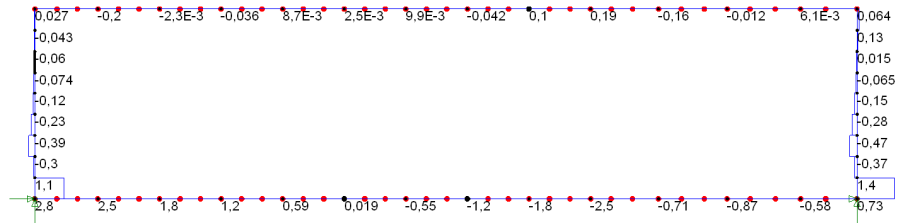


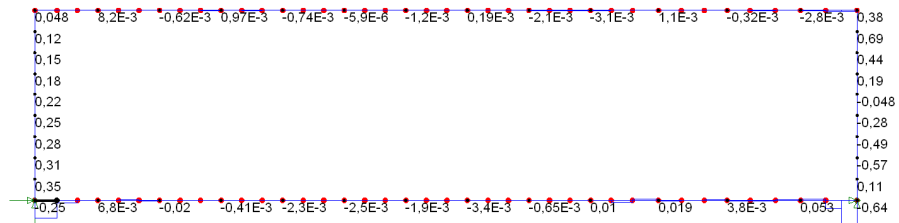
Figura A.2.1.289 – Face lateral 1 – Diagrama Fy

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 3.341 at Elt/GP 7/1  
 MIN -2.932 at Elt/GP 567/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 10,00  
 Max 3.153 at Node 26  
 Min -2.796 at Node 129



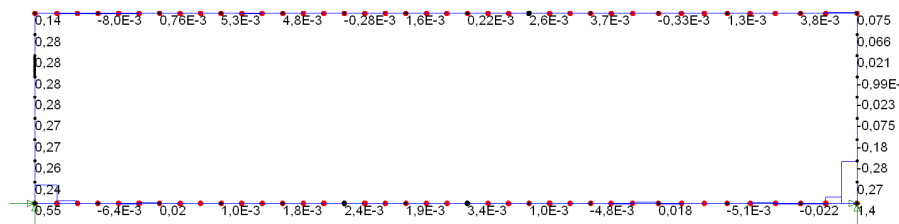
**Figura A.2.1.290 – Face lateral 2 – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.8045 at Elt/GP 136/1  
 MIN -2.048 at Elt/GP 731/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 0.6894 at Node 1913  
 Min -1.225 at Node 1930



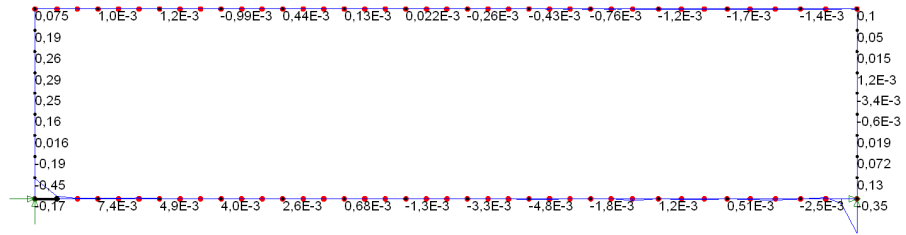
**Figura A.2.1.291 – Face lateral 1 – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 1.993 at Elt/GP 46/1  
 MIN -0.3118 at Elt/GP 66/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 1.422 at Node 159  
 Min -0.2817 at Node 291



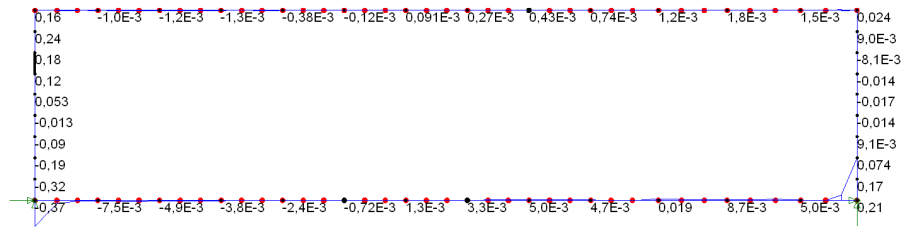
**Figura A.2.1.292 – Face lateral 2 – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.3186 at Elt/GP 20/1  
 MIN -0.6594 at Elt/GP 41/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0.2854 at Node 137  
 Min -0.4541 at Node 104



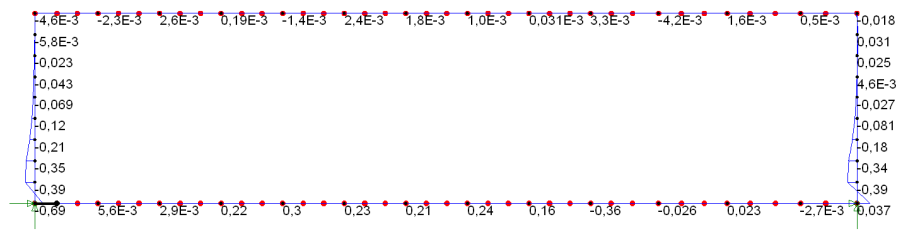
**Figura A.2.1.293 – Face lateral 1 – Diagrama My**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.5210 at Elt/GP 46/11  
 MIN -0.4293 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0.2420 at Node 42  
 Min -0.3743 at Node 1



**Figura A.2.1.294 – Face lateral 2 – Diagrama My**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.6369 at Elt/GP 124/11  
 MIN -1.696 at Elt/GP 20/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 10,00  
 Max 0.3319 at Node 112  
 Min -0.7967 at Node 130



**Figura A.2.1.295 – Face lateral 1 – Diagrama Mz**

Scale=1:68,6304  
 Zoom: 112.0  
 Eye: (0,0;-1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.6379 at Elt/GP 117/11  
 MIN -1.688 at Elt/GP 7/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 10.00  
 Max 0.3934 at Node 4  
 Min -1.004 at Node 1

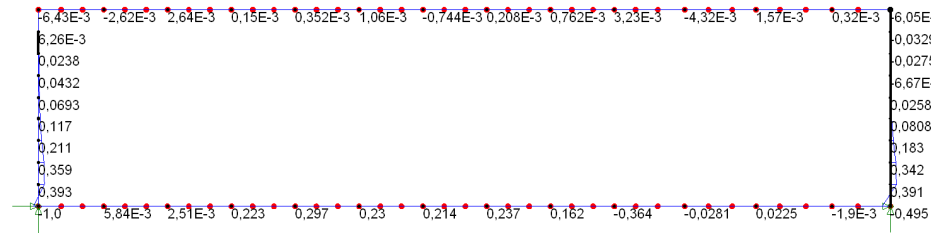


Figura A.2.1.296 – Face lateral 2 – Diagrama Mz

Scale=1:46,7276  
 Zoom: 100.0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 6.516 at Elt/GP 760/1  
 MIN -6.453 at Elt/GP 757/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 30.00  
 Max 3.929 at Node 394  
 Min -3.906 at Node 395

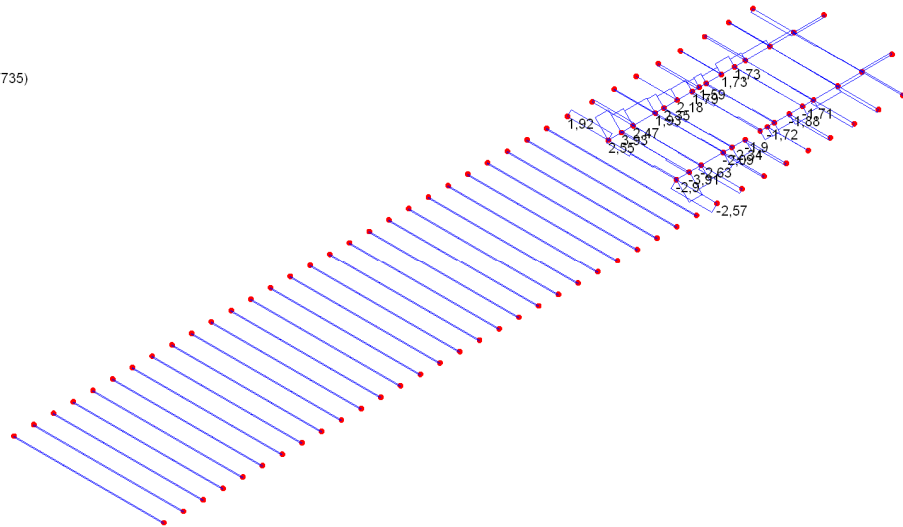
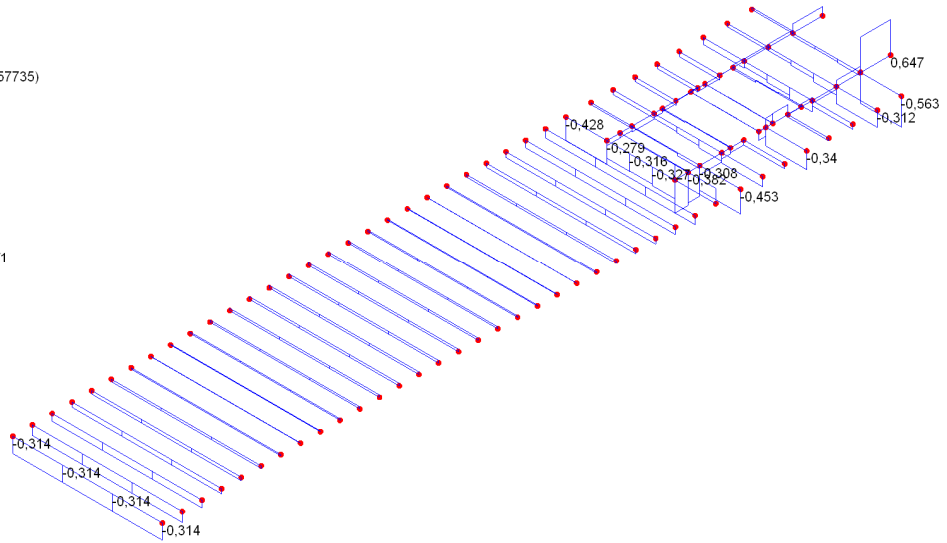


Figura A.2.1.297 – Estrutura da base – Diagrama Fx

Scale=1

Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress

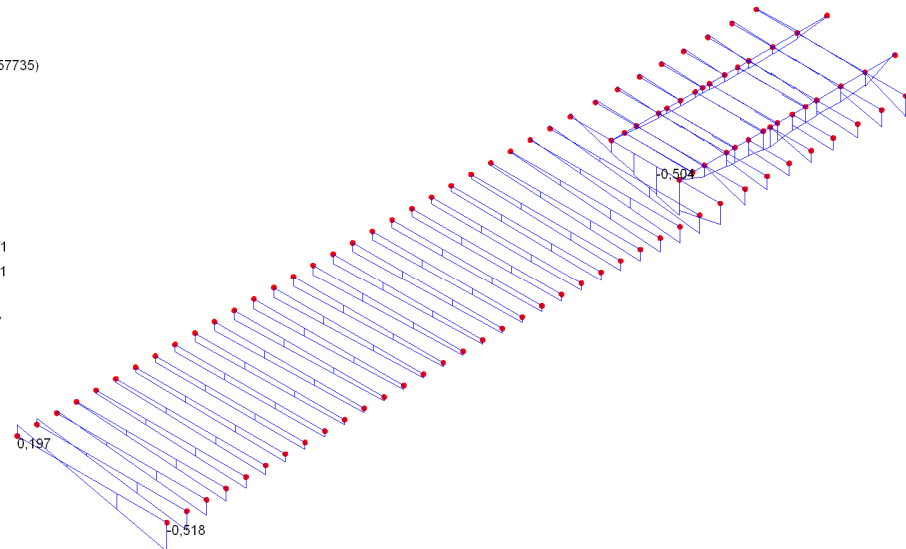
Diagram Component: Fz  
 MAX 0.6474 at Elm/GP 1383/1  
 MIN -0.6026 at Elm/GP 757/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fz  
 Peak Range(%): 25.00  
 Max 0.6474 at Node 392  
 Min -0.5629 at Node 157



**Figura A.2.1.299 – Estrutura da base – Diagrama Fz**

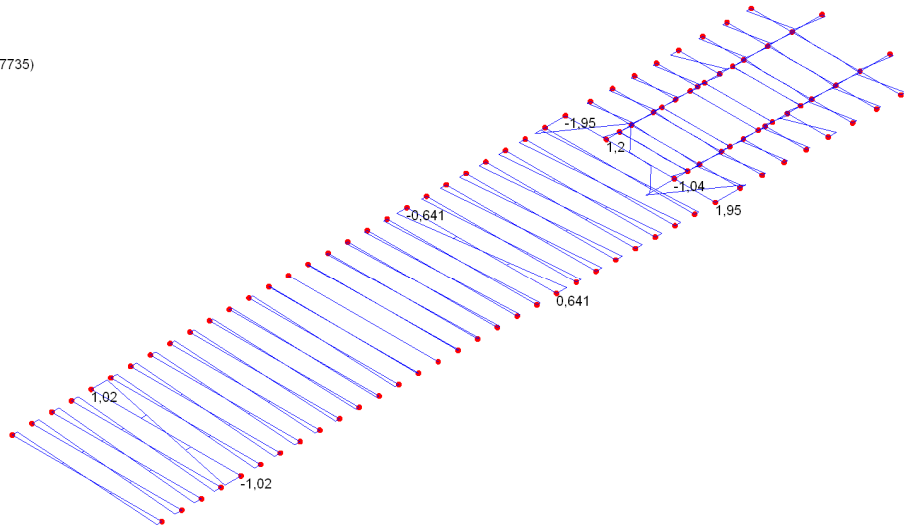
Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress

Diagram Component: My  
 MAX 0.1966 at Elm/GP 1997/1  
 MIN -0.6352 at Elm/GP 818/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 3.000  
 Max 0.1966 at Node 26  
 Min -0.5185 at Node 37



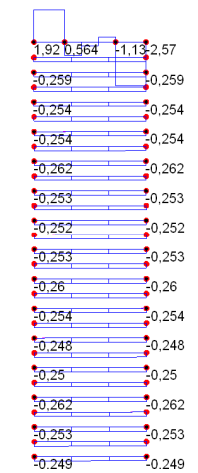
**Figura A.2.1.300 – Estrutura da base – Diagrama My**

Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 1.951 at Elt/GP 306/11  
 MIN -1.954 at Elt/GP 305/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35,00  
 Max 1.951 at Node 133  
 Min -1.954 at Node 132

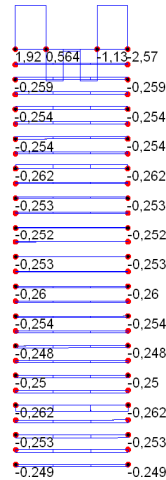


**Figura A.2.1.301 – Estrutura da base – Diagrama Mz**

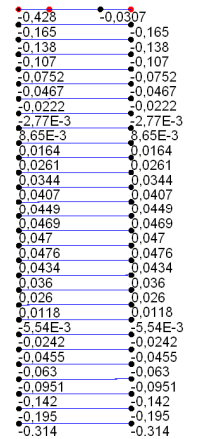
Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 1.916 at Elt/GP 305/1  
 MIN -2.571 at Elt/GP 306/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fx  
 Peak Range(%): 35,00  
 Max 1.916 at Node 132  
 Min -2.571 at Node 133



Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 6.038 at Elt/GP 305/1  
 MIN -4.396 at Elt/GP 815/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fy  
 Peak Range(%): 45,00  
 Max 1.916 at Node 132  
 Min -2.571 at Node 133

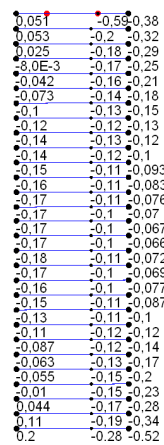


Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.2797 at Elt/GP 306/1  
 MIN -0.4281 at Elt/GP 305/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fz  
 Peak Range(%): 49,00  
 Max 0.2797 at Node 133  
 Min -0.4281 at Node 132

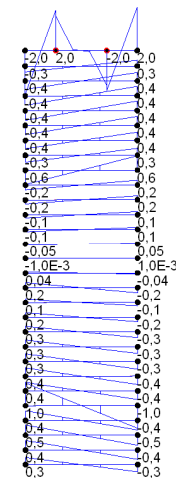


**Figura A.2.1.302 – Perfis transversais – Diagrama Fx, Fy e Fz**

Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.1966 at Elt/GP 1997/1  
 MIN -0.6352 at Elt/GP 818/11  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =My  
 Peak Range(%): 49,00  
 Max 0.1966 at Node 26  
 Min -0.5926 at Node 433

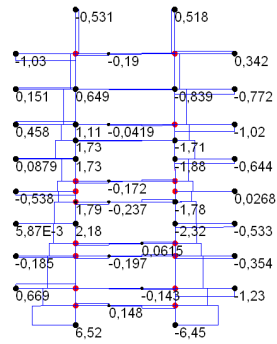


Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 1.951 at Elt/GP 306/11  
 MIN -1.954 at Elt/GP 305/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35,00  
 Max 1.951 at Node 133  
 Min -1.954 at Node 132



**Figura A.2.1.303 – Perfis transversais – Diagrama My e Mz**

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 6.516 at Elt/GP 760/1  
 MIN -6.453 at Elt/GP 757/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 35.00  
 Max 6.516 at Node 431  
 Min -6.453 at Node 433



Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 1.676 at Elt/GP 297/1  
 MIN -1.339 at Elt/GP 757/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 35.00  
 Max 1.676 at Node 363  
 Min -1.339 at Node 433

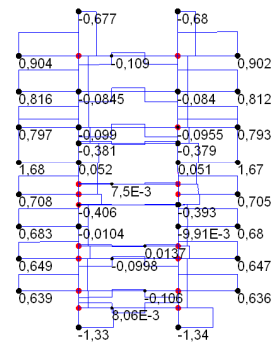


Figura A.2.1.304 – Abertura para os garfos - Perfis transversais – Diagrama Fx e Fy

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.6474 at Elt/GP 1383/1  
 MIN -0.6026 at Elt/GP 757/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 35.00  
 Max 0.6474 at Node 392  
 Min -0.6026 at Node 433

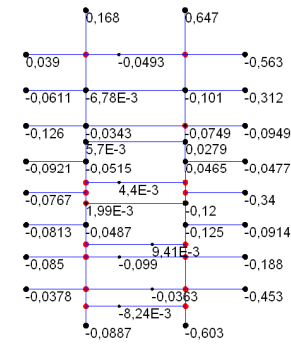
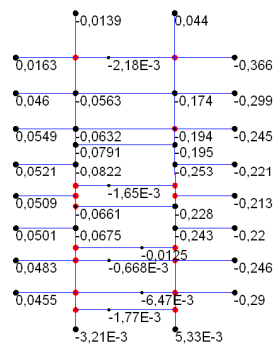


Figura A.2.1.305 – Abertura para os garfos - Perfis transversais – Diagrama Fz

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.5491E-01 at Elt/GP 299/1  
 MIN -0.3660 at Elt/GP 304/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 35.00  
 Max 0.5491E-01 at Node 150  
 Min -0.3660 at Node 157



Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 6  
 Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.5245 at Elt/GP 297/11  
 MIN -0.5222 at Elt/GP 298/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.5152 at Node 148  
 Min -0.5175 at Node 363

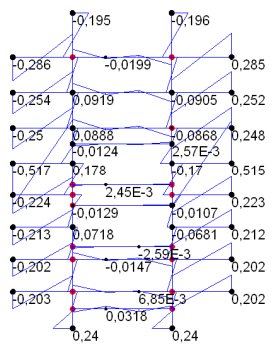


Figura A.2.1.306 – Abertura para os garfos - Perfis transversais – Diagrama My e Mz

## Caso de carga 6

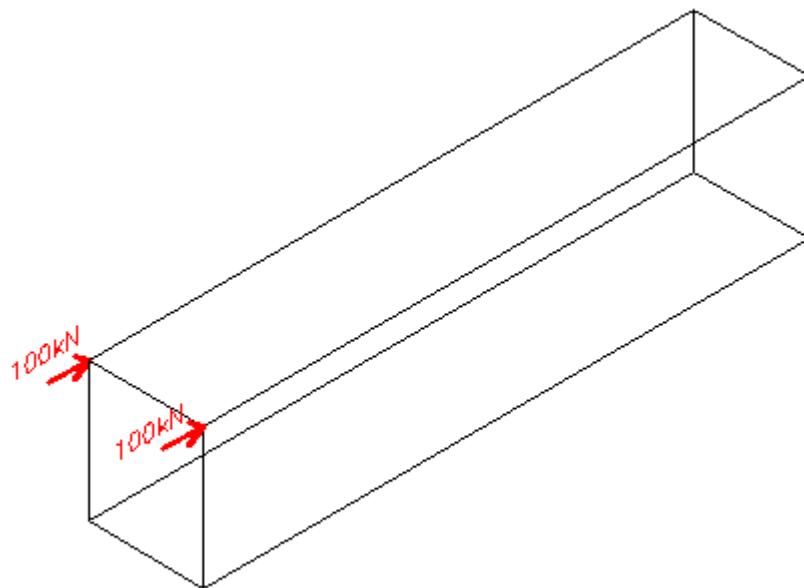


Figura A.2.1.307 – Caso de carga 6

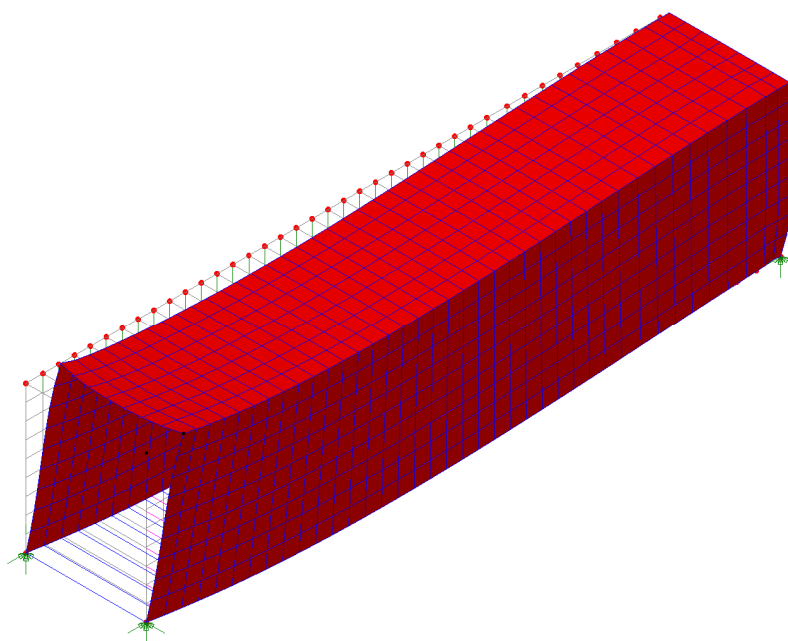
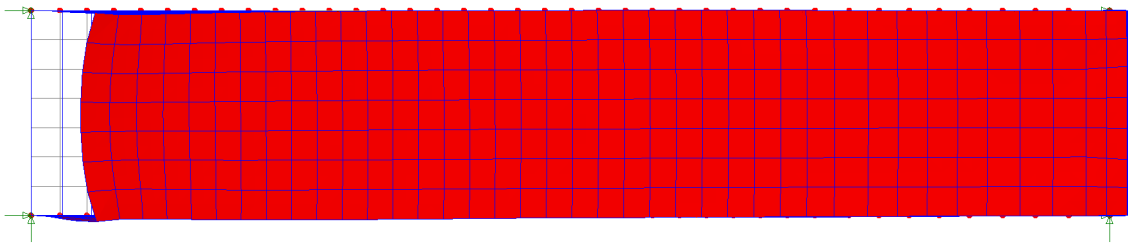
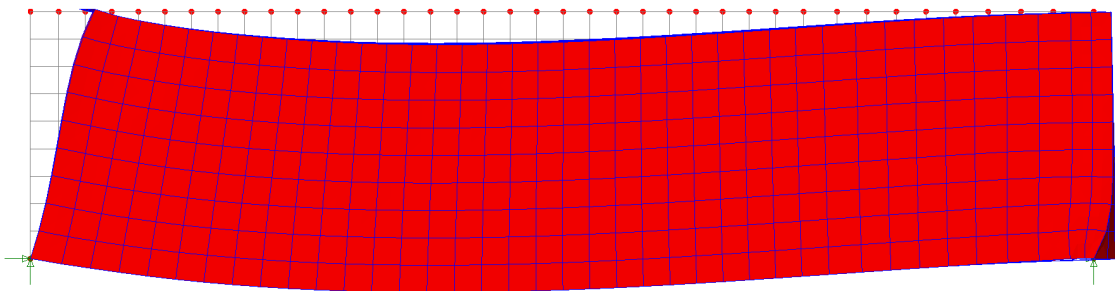


Figura A.2.1.308 - Vista geral da deformada

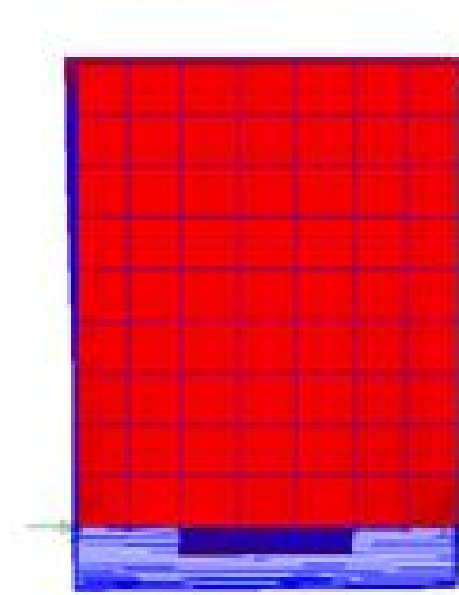
Deslocamento máximo: 1,01 mm.



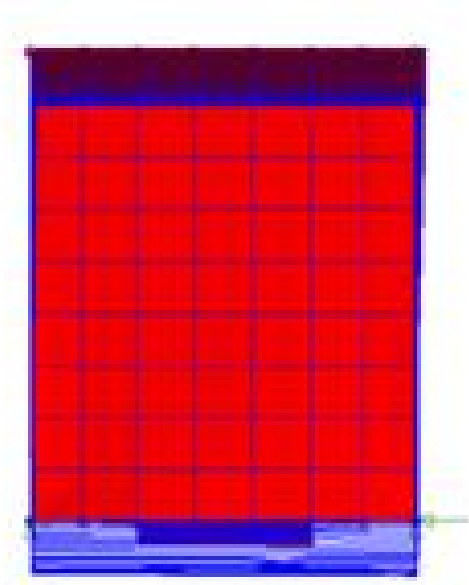
**Figura A.2.1.309 - Vista da cobertura deformada**



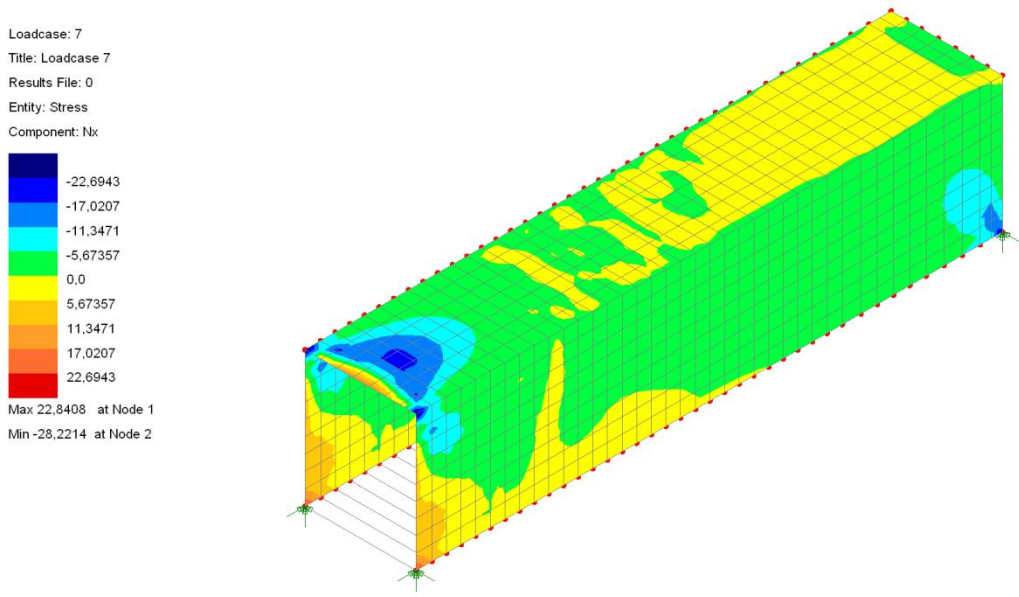
**Figura A.2.1.310 - Vista da face lateral deformada**



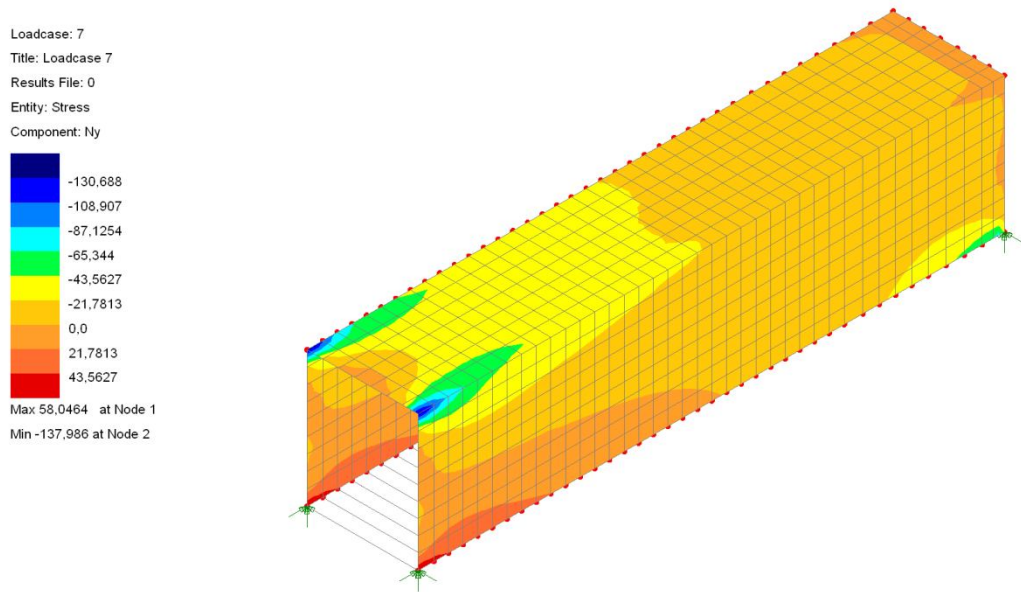
**Figura A.2.1.311 - Vista da face da porta deformada**



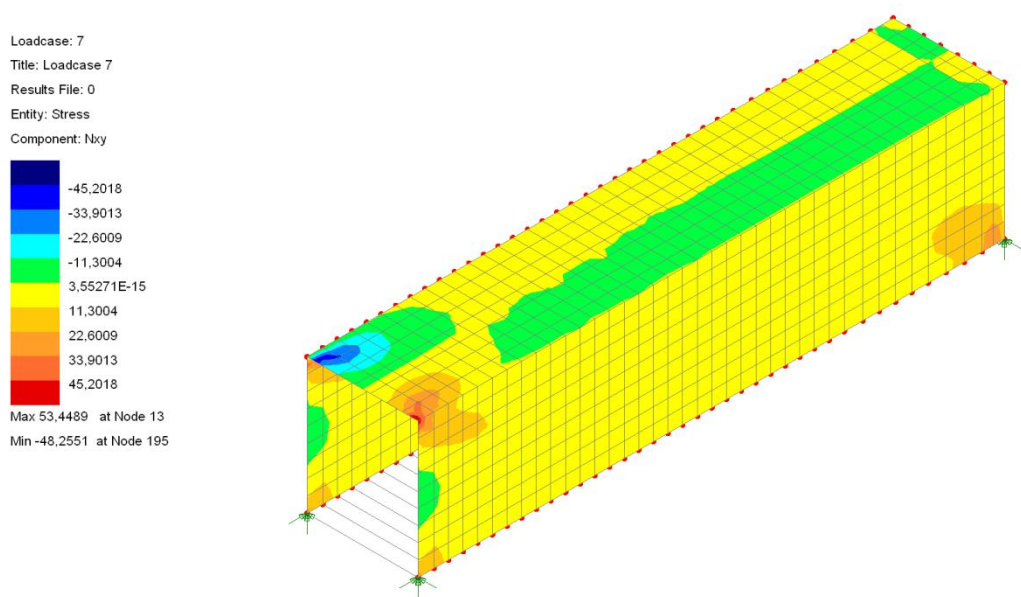
**Figura A.2.1.312 - Vista da face frontal deformada**



**Figura A.2.1.313 - Vista geral – Esforço Nx**

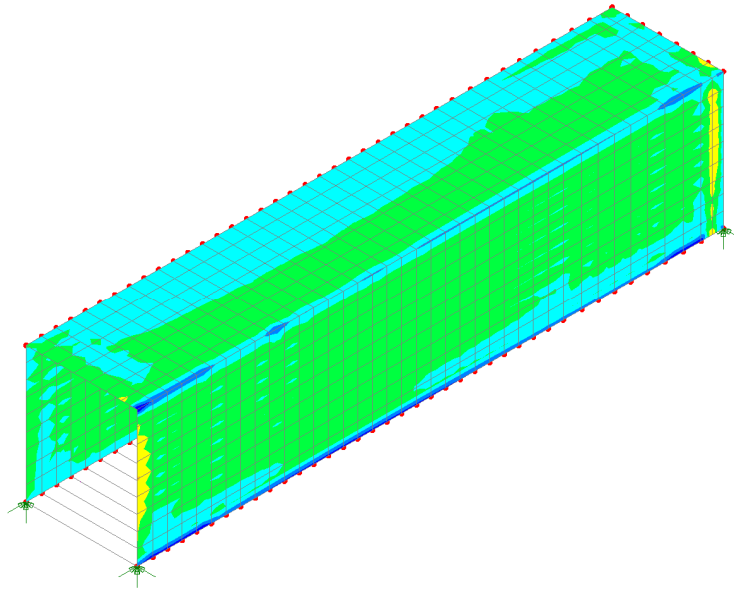


**Figura A.2.1.314 - Vista geral – Esforço Ny**



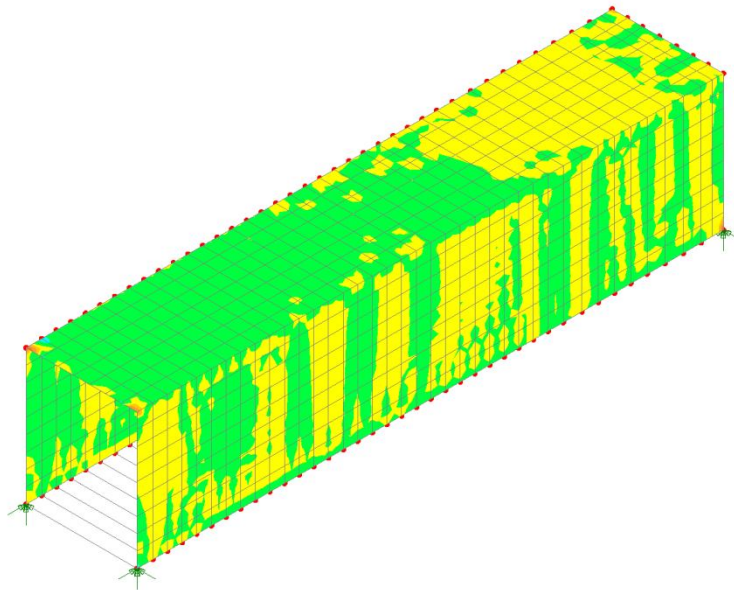
**Figura A.2.1.315 - Vista geral – Esforço Nxy**

Loadcase: 6  
 Title: Loadcase 6  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -0,0117553  
 -7,83687E-3  
 -3,91844E-3  
 0,0  
 3,91844E-3  
 7,83687E-3  
 0,0117553  
 0,0156737  
 0,0195922  
 Max 0,0205812 at Node 419  
 Min -0,0146847 at Node 2146



**Figura A.2.1.316 - Vista geral – Esforço Mx**

Loadcase: 7  
 Title: Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Component: My  
 -0,468293E-3  
 -0,35122E-3  
 -0,234147E-3  
 -0,117073E-3  
 -0,0271051E-18  
 0,117073E-3  
 0,234147E-3  
 0,35122E-3  
 0,468293E-3  
 Max 0,487888E-3 at Node 160  
 Min -0,565772E-3 at Node 392



**Figura A.2.1.317 - Vista geral – Esforço My**

Loadcase: 7  
Title: Loadcase 7  
Results File: 0  
Entity: Stress  
Component: Nx  
Max 22,8408 at Node 1  
Min -29,6908 at Node 2

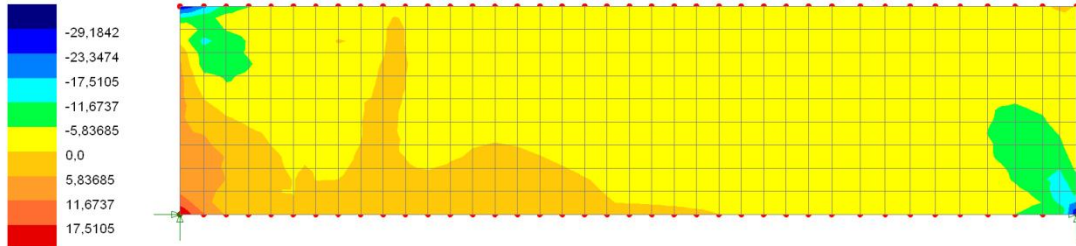


Figura A.2.1.318 – Face lateral – Esforço Nx

Loadcase: 7  
Title: Loadcase 7  
Results File: 0  
Entity: Stress  
Component: Ny  
Max 58,0464 at Node 1  
Min -139,639 at Node 2

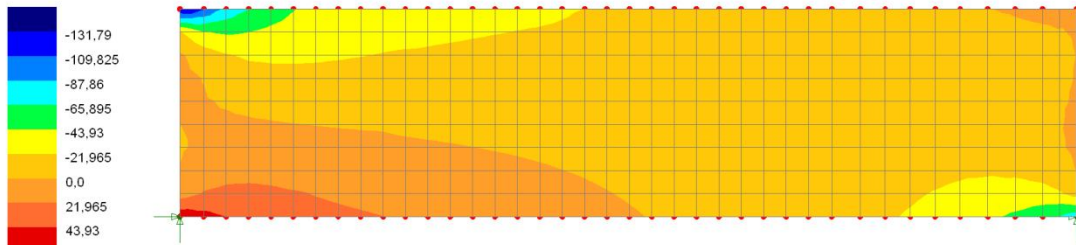


Figura A.2.1.319 – Face lateral – Esforço Ny

Loadcase: 7  
Title: Loadcase 7  
Results File: 0  
Entity: Stress  
Component: Nxy  
Max 51,4593 at Node 2  
Min -4,43395 at Node 11

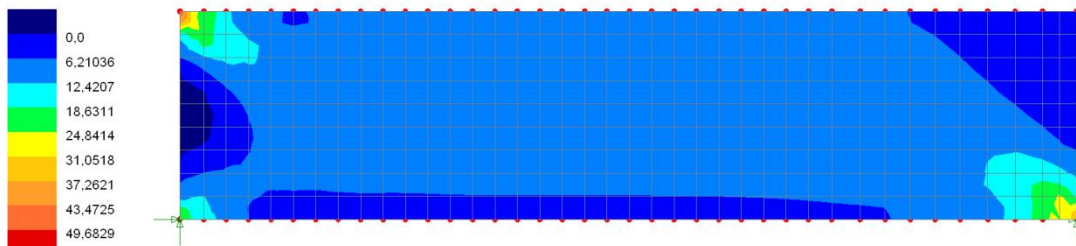
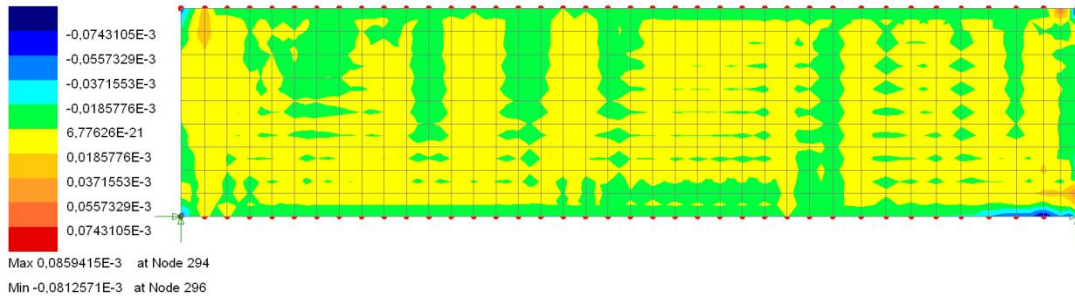


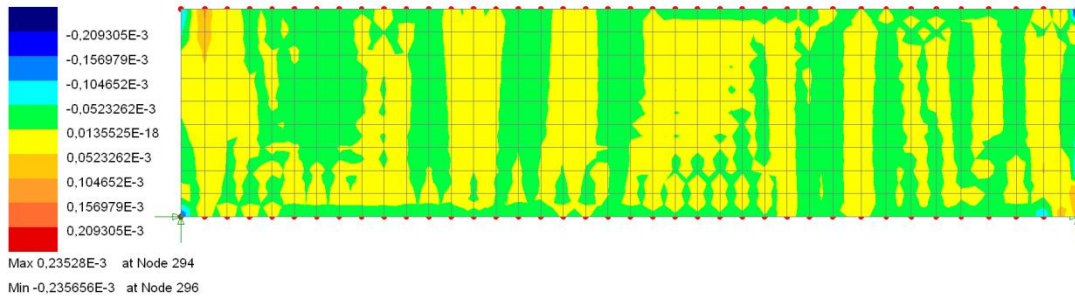
Figura A.2.1.320 – Face lateral – Esforço Nxy

Loadcase: 7  
Title: Loadcase 7  
Results File: 0  
Entity: Stress  
Component: Mx



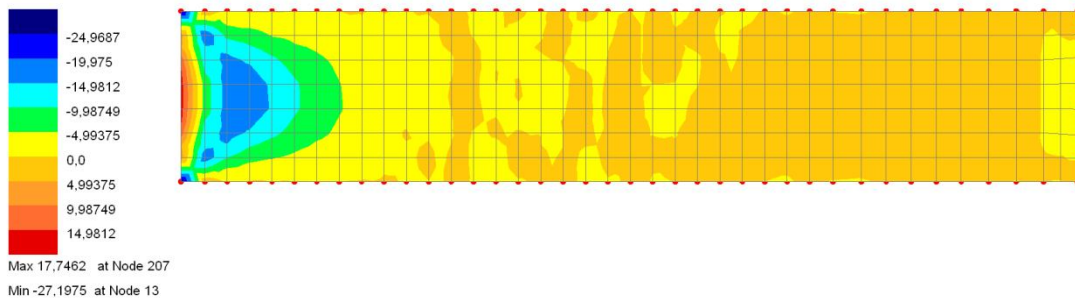
**Figura A.2.1.321 – Face lateral – Esforço Mx**

Loadcase: 7  
Title: Loadcase 7  
Results File: 0  
Entity: Stress  
Component: My



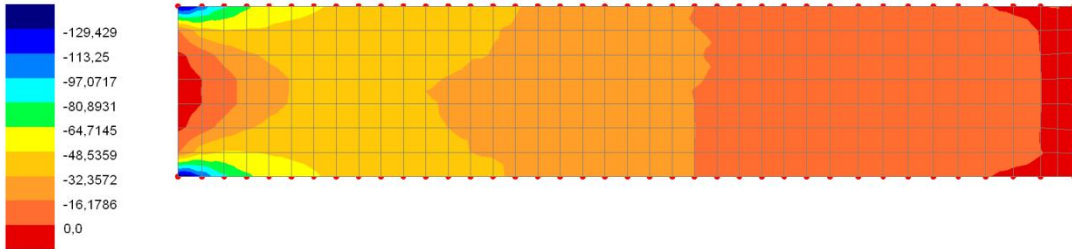
**Figura A.2.1.322 – Face lateral – Esforço My**

Loadcase: 7  
Title: Loadcase 7  
Results File: 0  
Entity: Stress  
Component: Nx



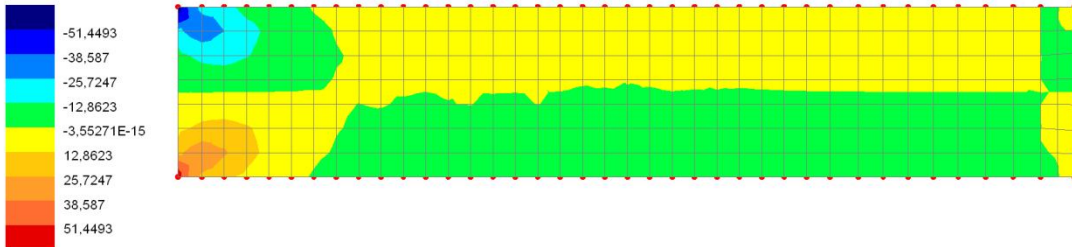
**Figura A.2.1.323 – Cobertura – Esforço Nx**

Loadcase: 7  
 Title: Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 Max 6,32957 at Node 207  
 Min -139,278 at Node 13



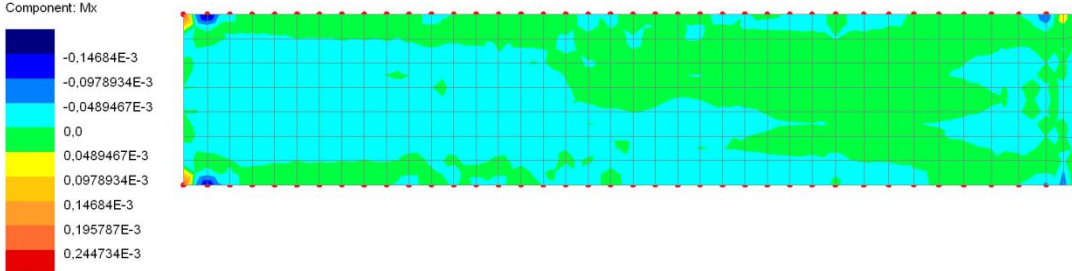
**Figura A.2.1.324 – Cobertura – Esforço Ny**

Loadcase: 7  
 Title: Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 Max 58,1695 at Node 13  
 Min -57,5915 at Node 2



**Figura A.2.1.325 – Cobertura – Esforço Nxy**

Loadcase: 7  
 Title: Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 Max 0,256367E-3 at Node 2  
 Min -0,184153E-3 at Node 24



**Figura A.2.1.326 – Cobertura – Esforço Mx**

Loadcase: 7  
 Title: Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Component: My

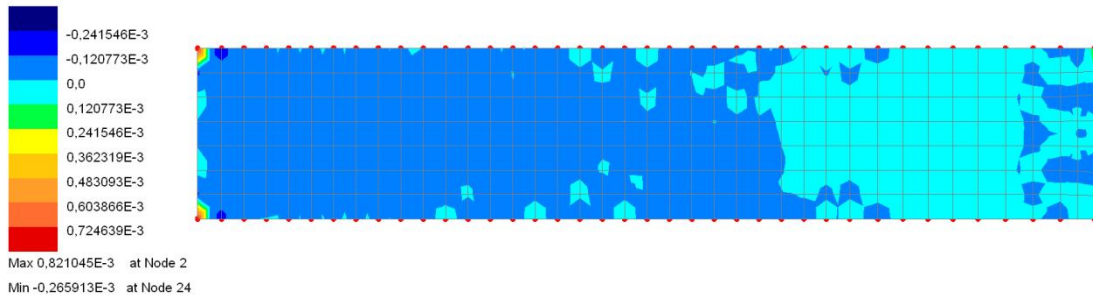
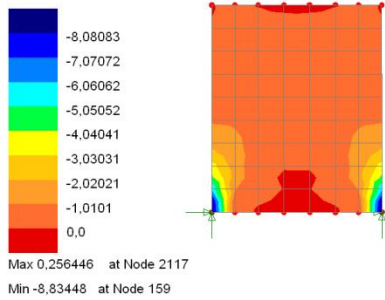
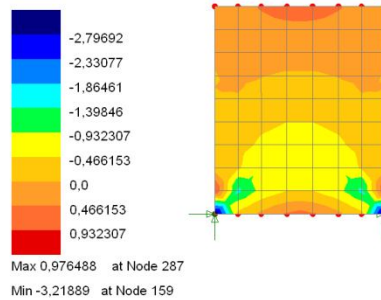


Figura A.2.1.327 – Cobertura – Esforço My

Loadcase: 7  
 Title: Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Component: Nx



Loadcase: 7  
 Title: Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Component: Ny



Loadcase: 7  
 Title: Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Component: Nxy

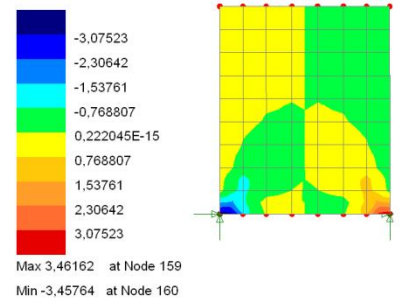
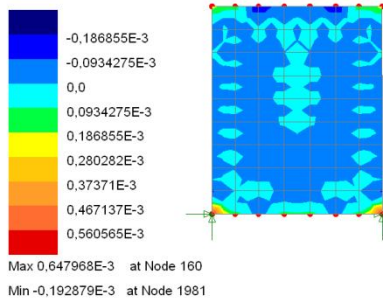


Figura A.2.1.328 – Face frontal – Esforço Nx, Ny e Nxy

Loadcase: 7  
 Title: Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Component: Mx



Loadcase: 7  
 Title: Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Component: My

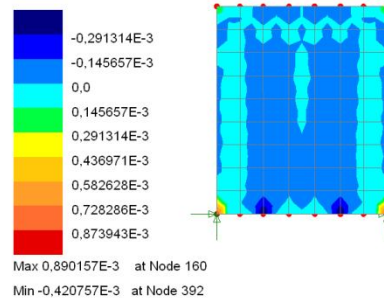


Figura A.2.1.329 – Face frontal – Esforço Mx e My

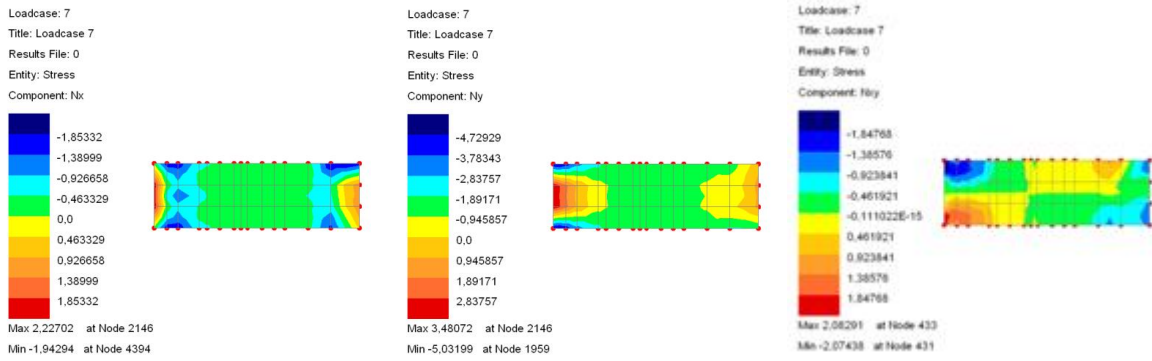


Figura A.2.1.330 – Abertura para os garfos – FP – Esforço Nx, Ny e Nxy

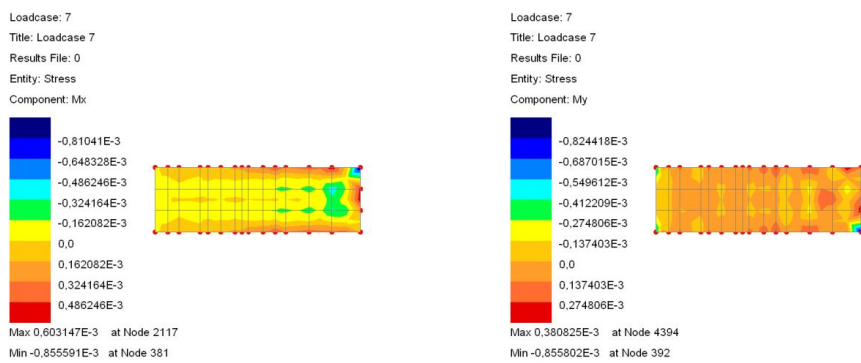


Figura A.2.1.331 – Abertura para os garfos – FP – Esforço Mx e My

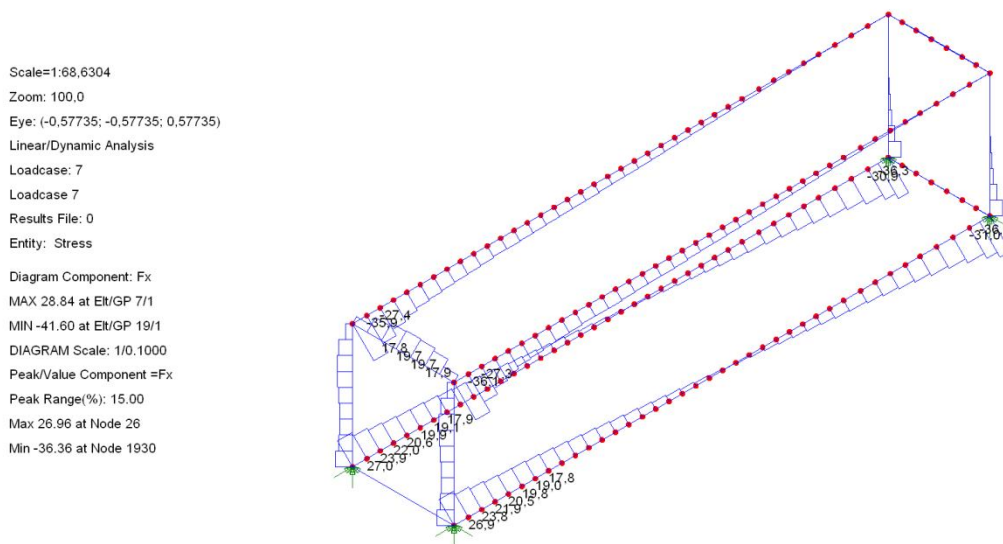
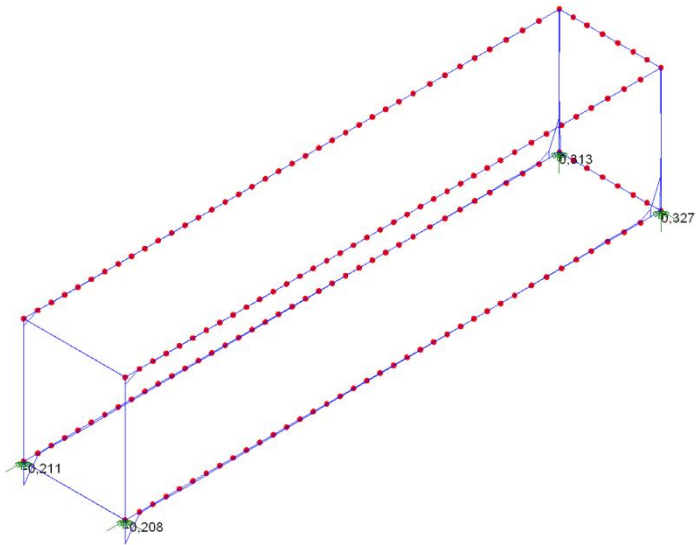


Figura A.2.1.332 – Vista geral – Diagrama Fx



Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress

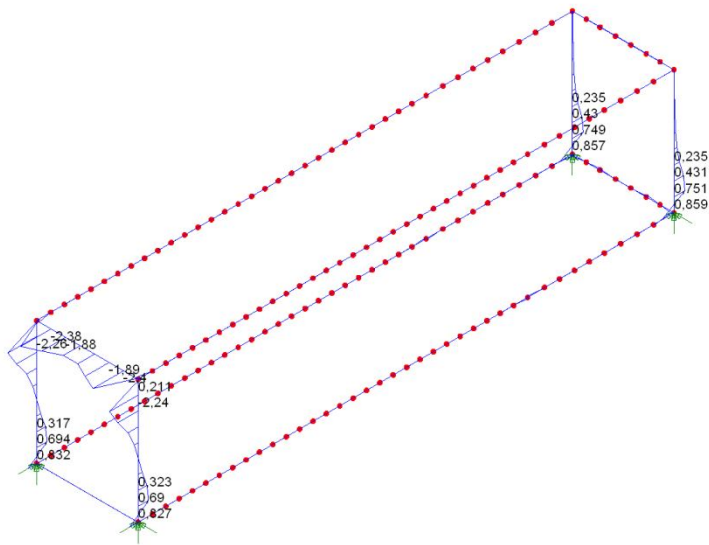
Diagram Component: My  
 MAX 0,9407 at Elt/GP 731/11  
 MIN -0,6349 at Elt/GP 7/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =My  
 Peak Range(%): 20,00  
 Max 0,3267 at Node 160  
 Min -0,2115 at Node 1



**Figura A.2.1.335 – Vista geral – Diagrama My**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress

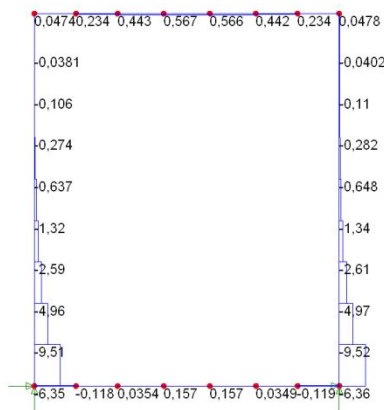
Diagram Component: Mz  
 MAX 0,8591 at Elt/GP 120/11  
 MIN -2,404 at Elt/GP 32/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 20,00  
 Max 0,8590 at Node 441  
 Min -2,404 at Node 304



**Figura A.2.1.336 – Vista geral – Diagrama Mz**



Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.6006 at Elt/GP 759/1  
 MIN -12.53 at Elt/GP 65/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 101.0  
 Max 0.5667 at Node 1994  
 Min -9.522 at Node 287



Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 5.838 at Elt/GP 120/1  
 MIN -1.035 at Elt/GP 122/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 101.0  
 Max 3.150 at Node 159  
 Min -0.8347 at Node 1903

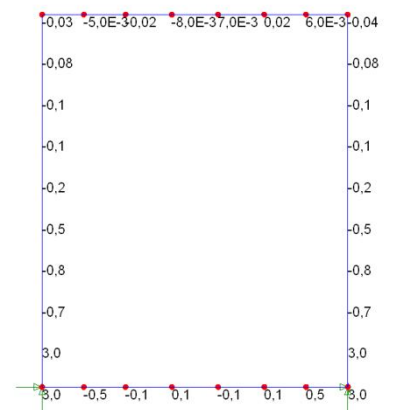


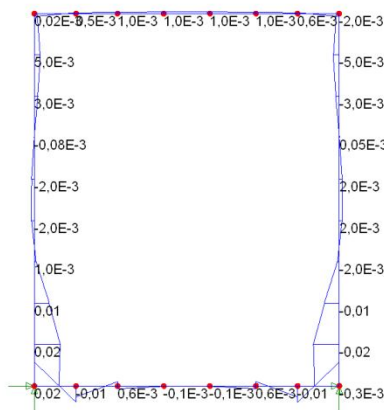
Figura A.2.1.340 – Face frontal – Diagrama Fx e Fy

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1045 at Elt/GP 1980/1  
 MIN -0.1046 at Elt/GP 2166/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fz  
 Peak Range(%): 101.0  
 Max 0.5399E-01 at Node 160  
 Min -0.5393E-01 at Node 159



Figura A.2.1.341 – Face frontal – Diagrama Fz

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.2110E-01 at Elt/GP 121/1  
 MIN -0.2117E-01 at Elt/GP 66/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =My  
 Peak Range(%): 101.0  
 Max 0.2107E-01 at Node 441  
 Min -0.2110E-01 at Node 287



Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.8591 at Elt/GP 120/11  
 MIN -0.9429 at Elt/GP 120/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 101.0  
 Max 0.8590 at Node 441  
 Min -0.5383 at Node 160

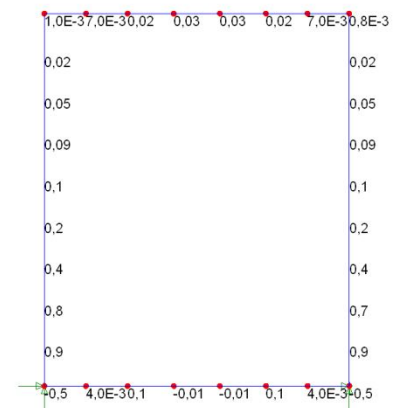
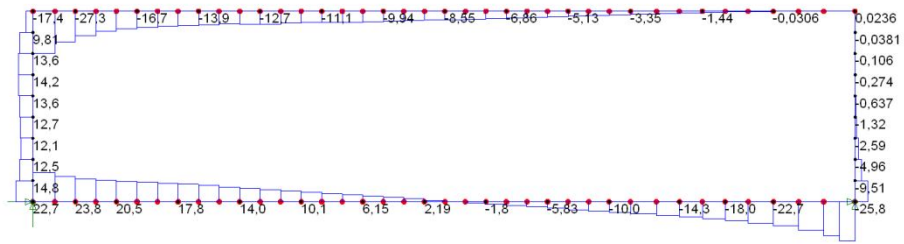


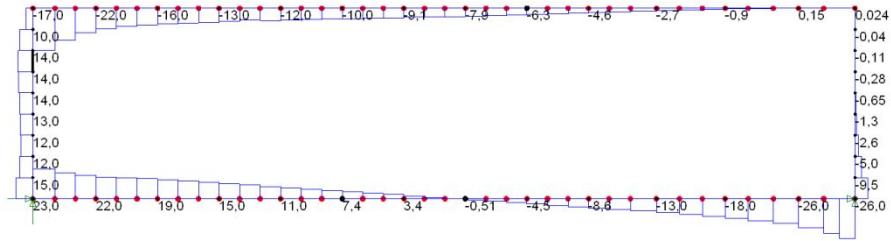
Figura A.2.1.342 – Face frontal – Diagrama My e Mz

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 28.77 at Elk/GP 20/1  
 MIN -41.60 at Elk/GP 19/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 26.88 at Node 37  
 Min -36.36 at Node 1930



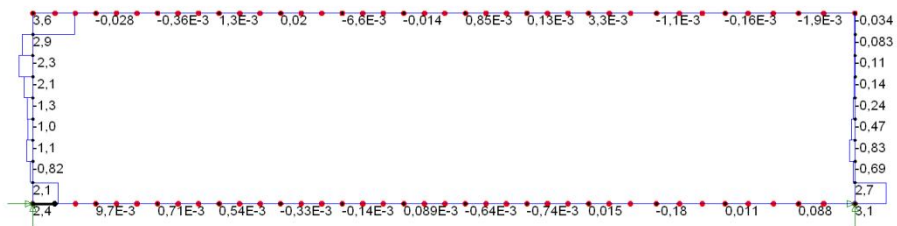
**Figura A.2.1.343 – Face lateral 1 – Diagrama Fx**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 28.84 at Elk/GP 7/1  
 MIN -40.96 at Elk/GP 6/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 26.96 at Node 26  
 Min -36.29 at Node 379



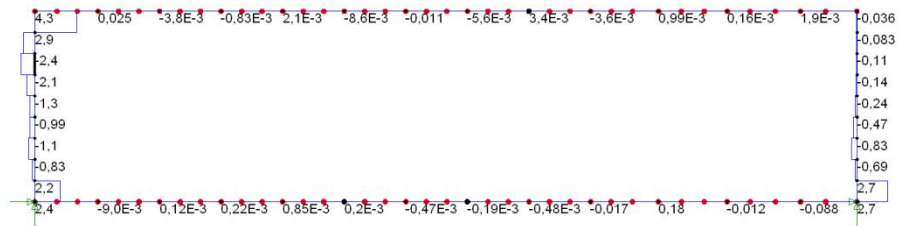
**Figura A.2.1.344 – Face lateral 2 – Diagrama Fx**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 7.905 at Elk/GP 53/1  
 MIN -2.628 at Elk/GP 51/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 10,00  
 Max 3.611 at Node 13  
 Min -2.347 at Node 146



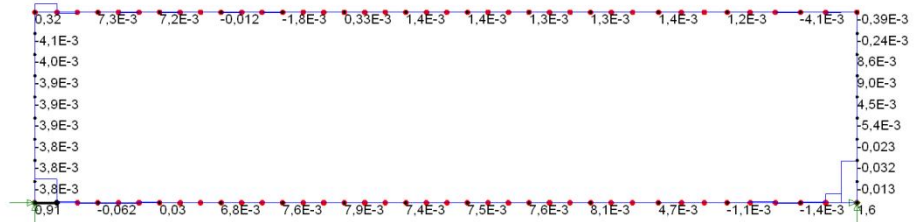
**Figura A.2.1.345 – Face lateral 1 – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 7.935 at Elk/GP 17/1  
 MIN -2.608 at Elk/GP 15/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 10,00  
 Max 4.300 at Node 2  
 Min -2.401 at Node 18



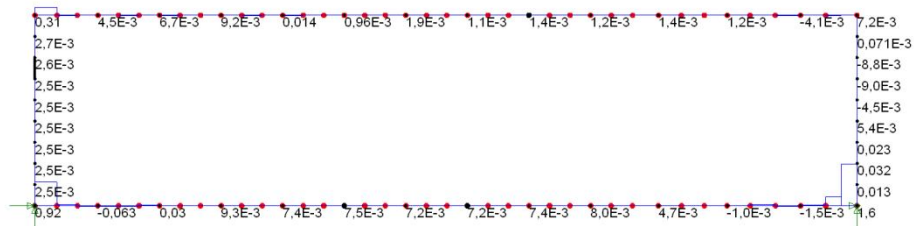
**Figura A.2.1.346 – Face lateral 2 – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 3.235 at Elk/GP 731/1  
 MIN -0.6740E-01 at Elk/GP 88/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 1.967 at Node 1930  
 Min -0.6203E-01 at Node 55



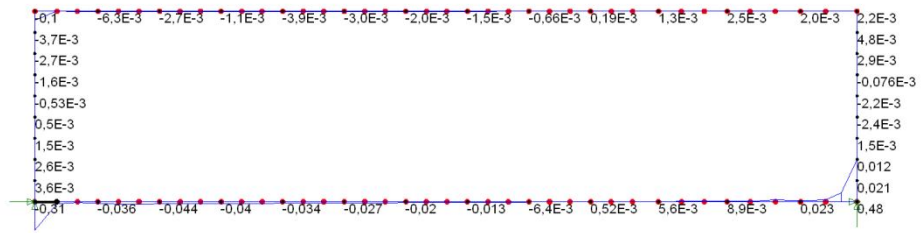
**Figura A.2.1.347 – Face lateral 1 – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 3.232 at Elk/GP 46/1  
 MIN -0.6833E-01 at Elk/GP 81/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 1.965 at Node 379  
 Min -0.6268E-01 at Node 54



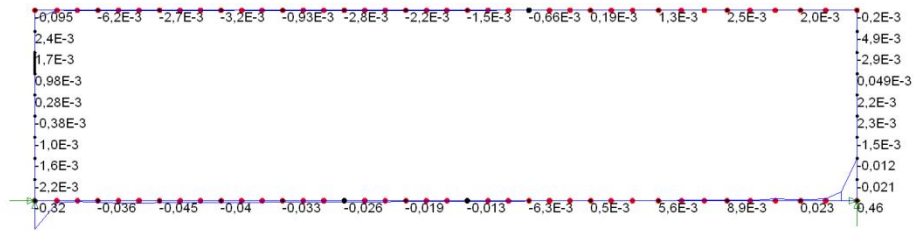
**Figura A.2.1.348 – Face lateral 2 – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.9407 at Etl/GP 731/11  
 MIN -0.6342 at Etl/GP 20/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0.4803 at Node 160  
 Min -0.3147 at Node 12



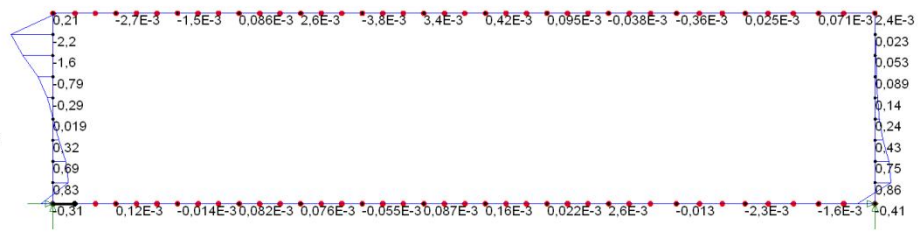
**Figura A.2.1.349 – Face lateral 1 – Diagrama My**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.9395 at Etl/GP 46/11  
 MIN -0.6349 at Etl/GP 7/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0.4598 at Node 159  
 Min -0.3189 at Node 1



**Figura A.2.1.350 – Face lateral 2 – Diagrama My**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.8591 at Etl/GP 120/11  
 MIN -2.239 at Etl/GP 53/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 10,00  
 Max 0.8590 at Node 441  
 Min -2.239 at Node 155



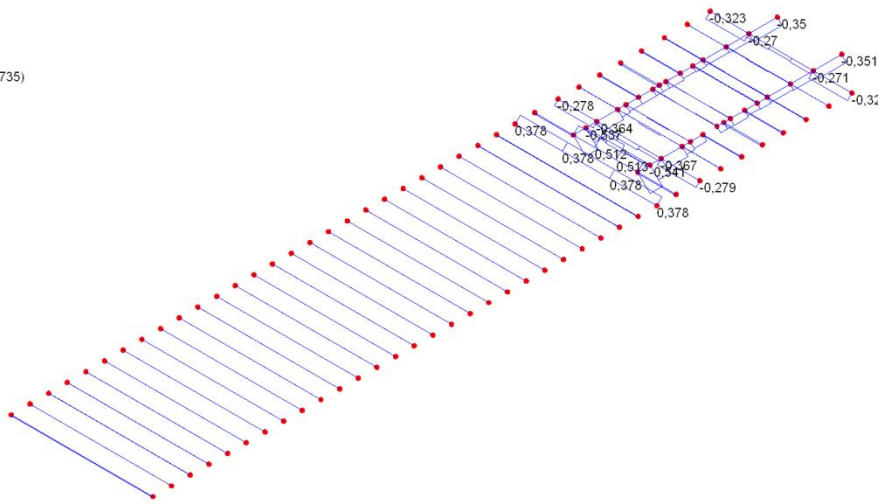
**Figura A.2.1.351 – Face lateral 1 – Diagrama Mz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.8573 at Elt/GP 65/11  
 MIN -2.255 at Elt/GP 17/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 10.00  
 Max 0.8572 at Node 287  
 Min -2.255 at Node 42



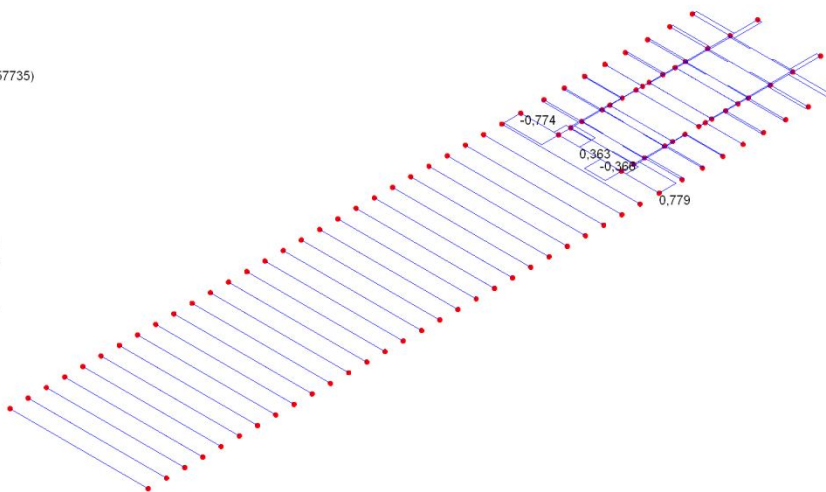
**Figura A.2.1.352 – Face lateral 2 – Diagrama Mz**

Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.6264 at Elt/GP 817/1  
 MIN -0.9181 at Elt/GP 757/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 30.00  
 Max 0.5131 at Node 2146  
 Min -0.5411 at Node 395

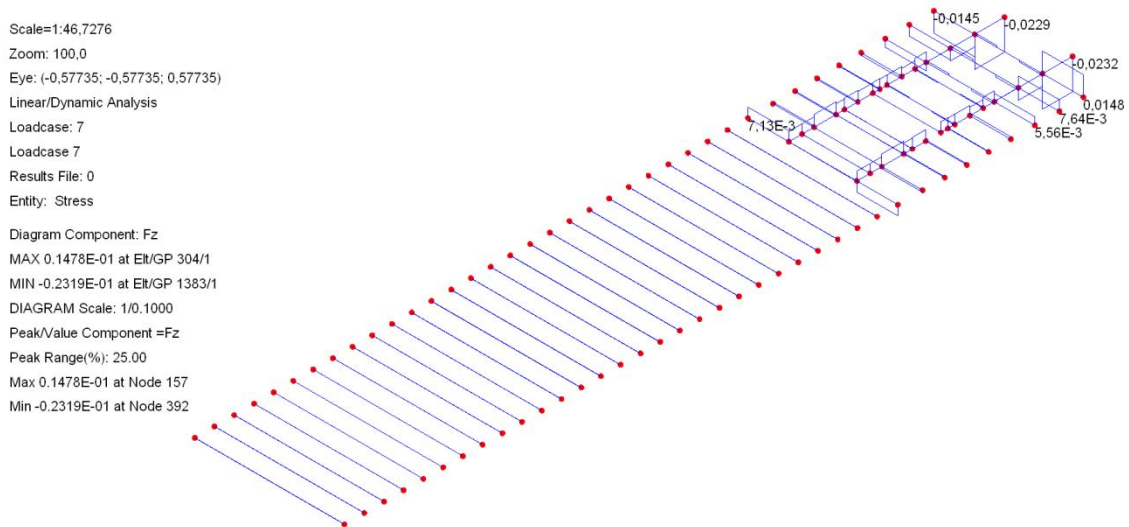


**Figura A.2.1.353 – Estrutura da base – Diagrama Fx**

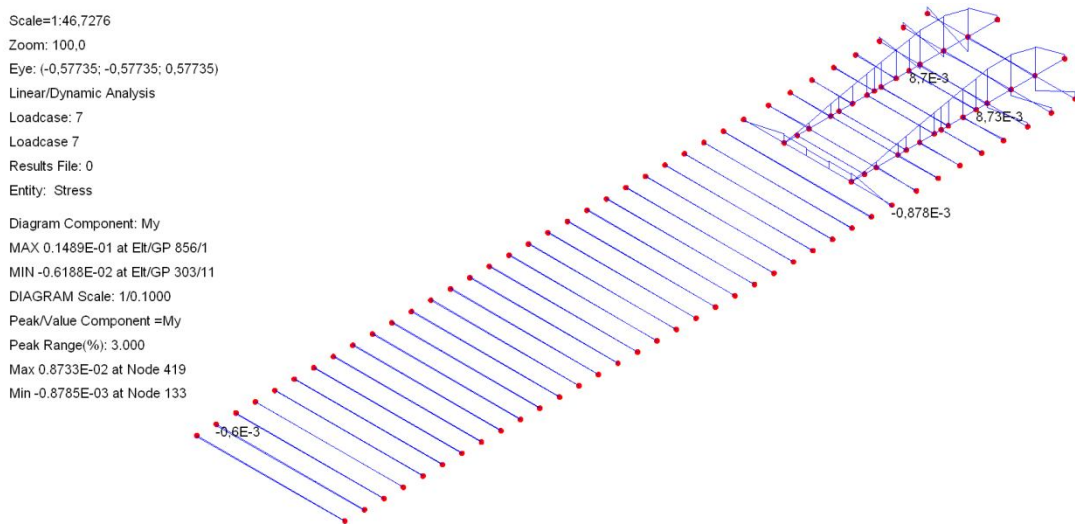
Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.7789 at Elt/GP 306/1  
 MIN -0.7735 at Elt/GP 305/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 30.00  
 Max 0.7789 at Node 133  
 Min -0.7735 at Node 132



**Figura A.2.1.354 – Estrutura da base – Diagrama Fy**



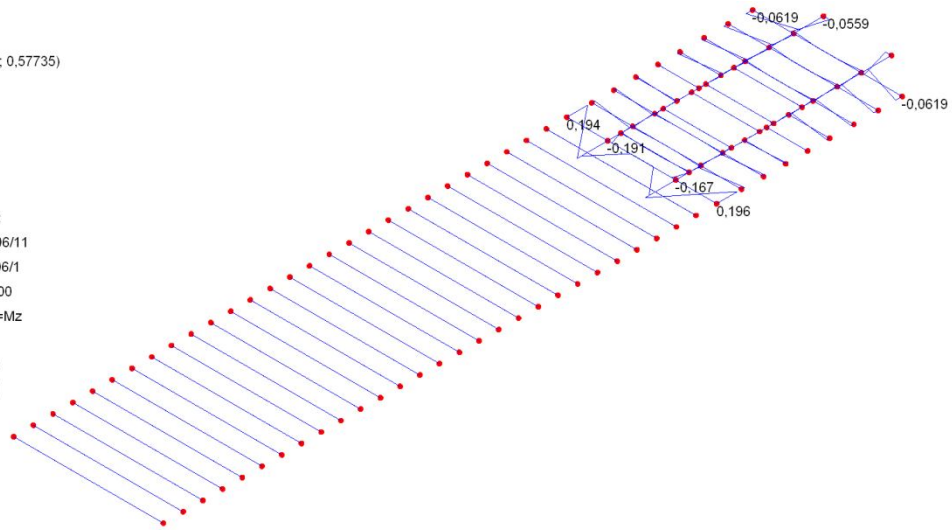
**Figura A.2.1.355 – Estrutura da base – Diagrama Fz**



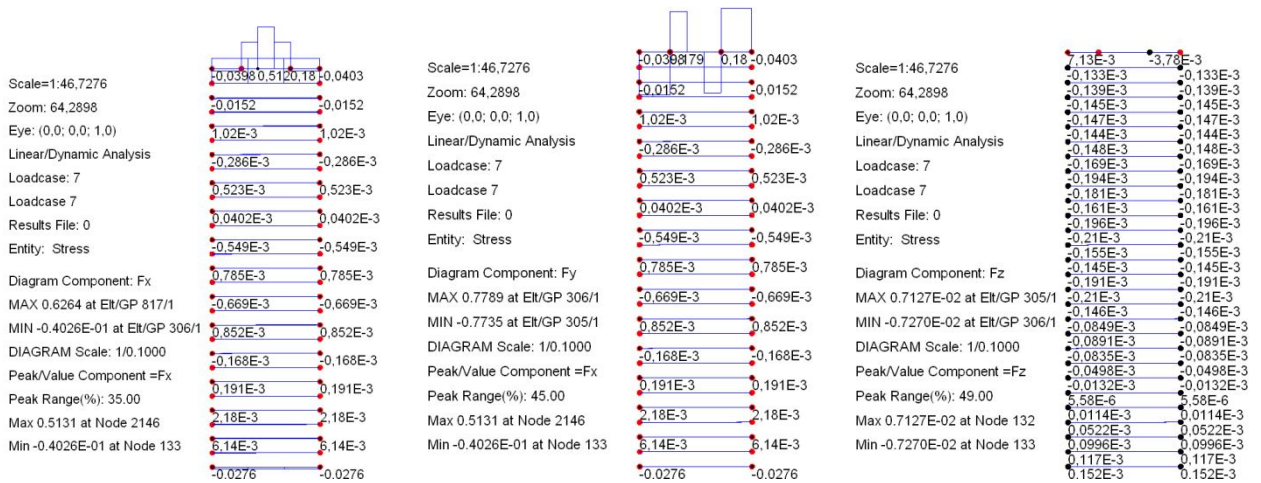
**Figura A.2.1.356 – Estrutura da base – Diagrama My**

Scale=1:46,7276  
 Zoom: 100.0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress

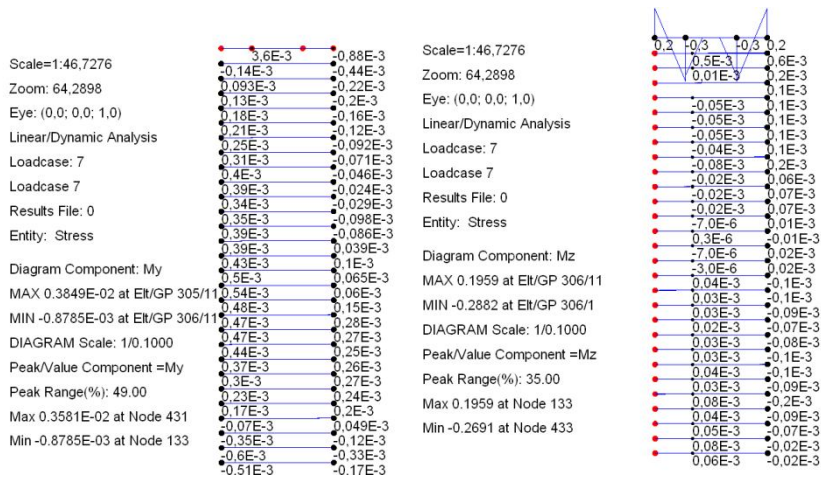
Diagram Component: Mz  
 MAX 0.1959 at Elt/GP 306/1  
 MIN -0.2882 at Elt/GP 306/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.1959 at Node 133  
 Min -0.1910 at Node 431



**Figura A.2.1.357 – Estrutura da base – Diagrama Mz**

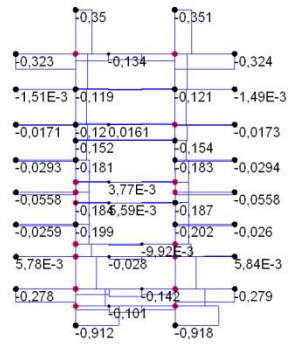


**Figura A.2.1.358 – Perfis transversais – Diagrama Fx, Fy e Fz**



**Figura A.2.1.359 – Perfis transversais – Diagrama Fx, Fy e Fz**

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.2299E-01 at Elm/GP 887/1  
 MIN -0.9181 at Elm/GP 757/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 35.00  
 Max 0.1935E-01 at Node 4165  
 Min -0.9181 at Node 433



Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.2115 at Elm/GP 760/1  
 MIN -0.2127 at Elm/GP 757/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 35.00  
 Max 0.2115 at Node 431  
 Min -0.2127 at Node 433

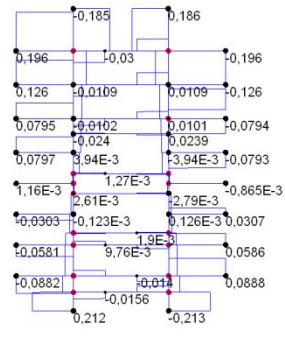


Figura A.2.1.360 – Abertura para os garfos - Perfis transversais – Diagrama Fx e Fy

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1478E-01 at Elm/GP 304/1  
 MIN -0.2319E-01 at Elm/GP 1383/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 35.00  
 Max 0.1478E-01 at Node 157  
 Min -0.2319E-01 at Node 392

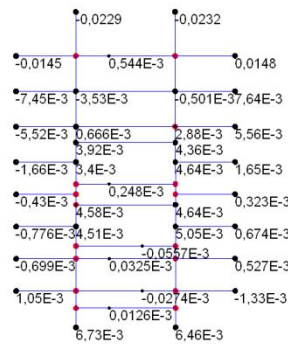
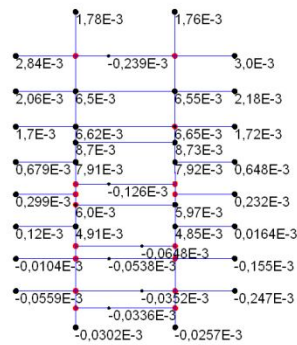


Figura A.2.1.361 – Abertura para os garfos - Perfis transversais – Diagrama Fx e Fy

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.1489E-01 at Elm/GP 856/1  
 MIN -0.6188E-02 at Elm/GP 303/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 35.00  
 Max 0.8733E-02 at Node 419  
 Min -0.2520E-03 at Node 4165



Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 7  
 Loadcase 7  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.6013E-01 at Elm/GP 304/1  
 MIN -0.6194E-01 at Elm/GP 304/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.5607E-01 at Node 392  
 Min -0.6194E-01 at Node 157

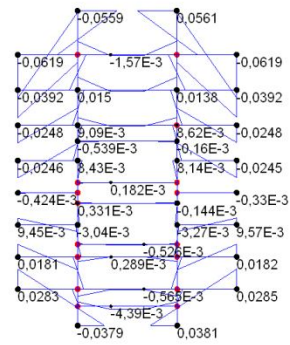


Figura A.2.1.362 – Abertura para os garfos - Perfis transversais – Diagrama My e Mz

## Caso de carga 7

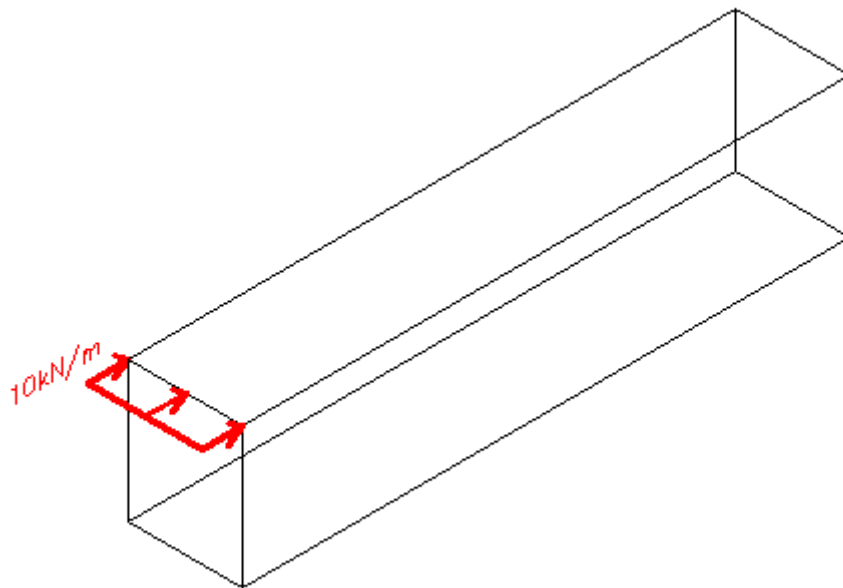


Figura A.2.1.363 – Caso de Carga 7

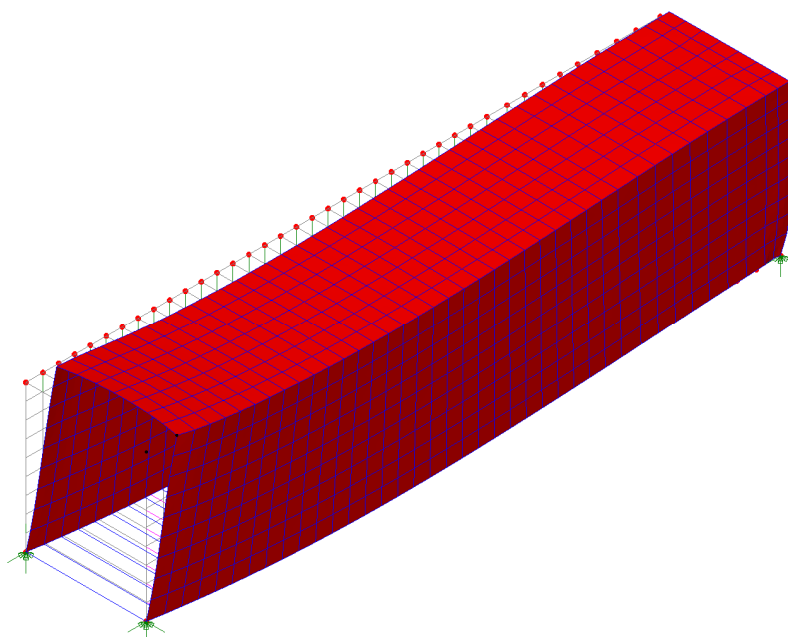
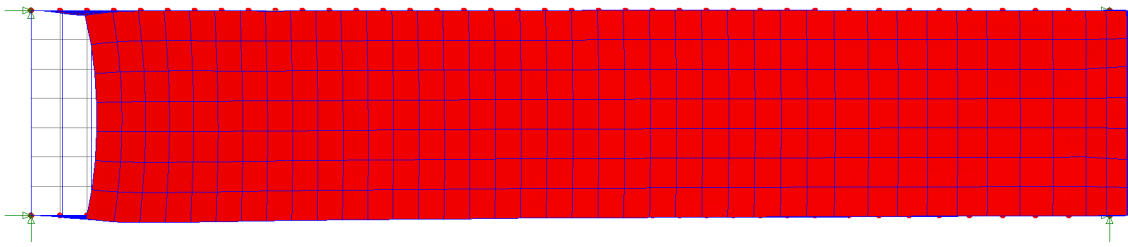
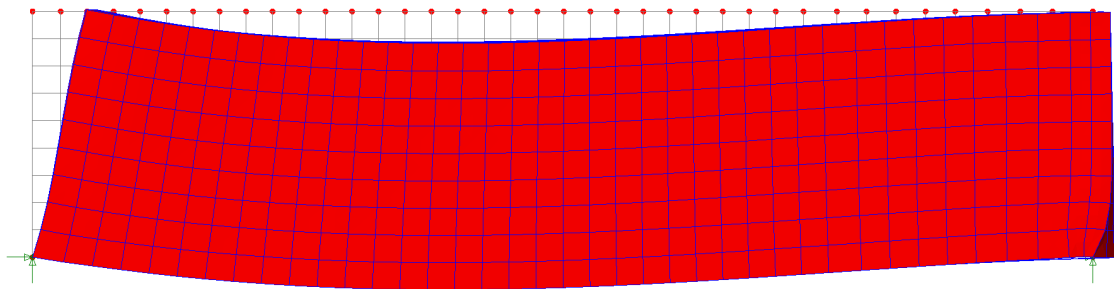


Figura A.2.1.364 – Vista geral da deformada

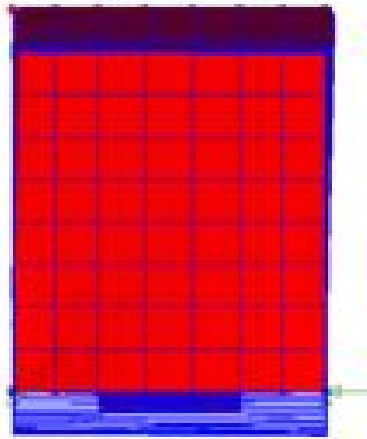
Deslocamento máximo: 0,12 mm.



**Figura A.2.1.365 – Vista da cobertura deformada**



**Figura A.2.1.366 – Vista da face lateral deformada**



**Figura A.2.1.367 – Vista da face da porta deformada**

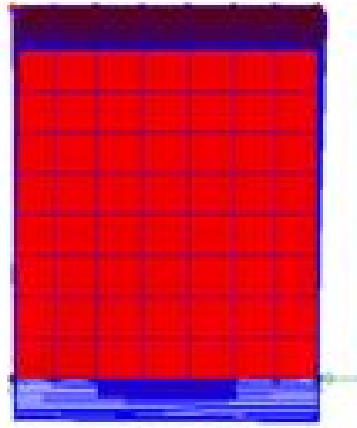


Figura A.2.1.368 – Vista da face frontal deformada

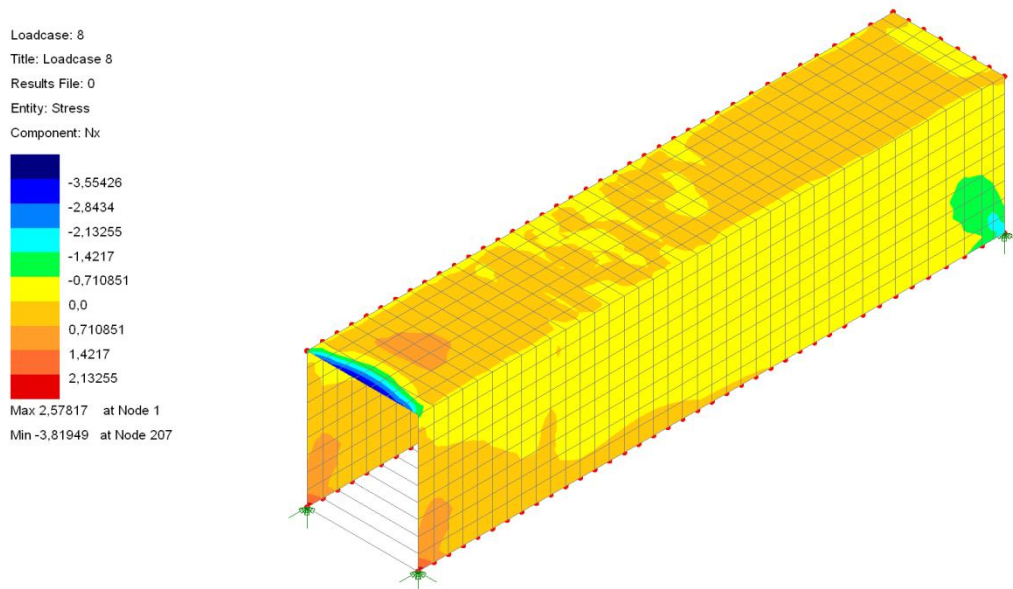
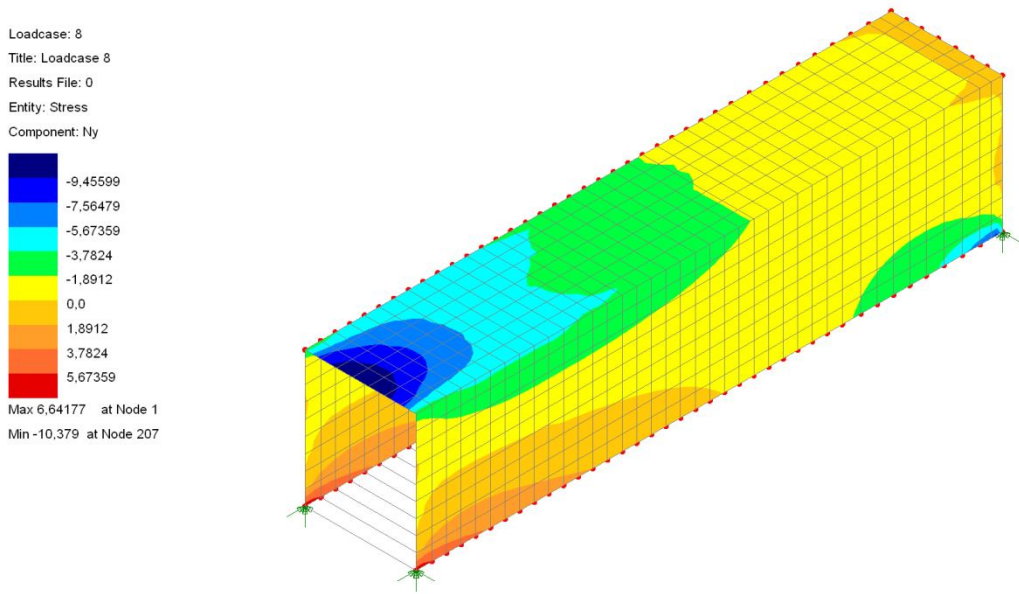
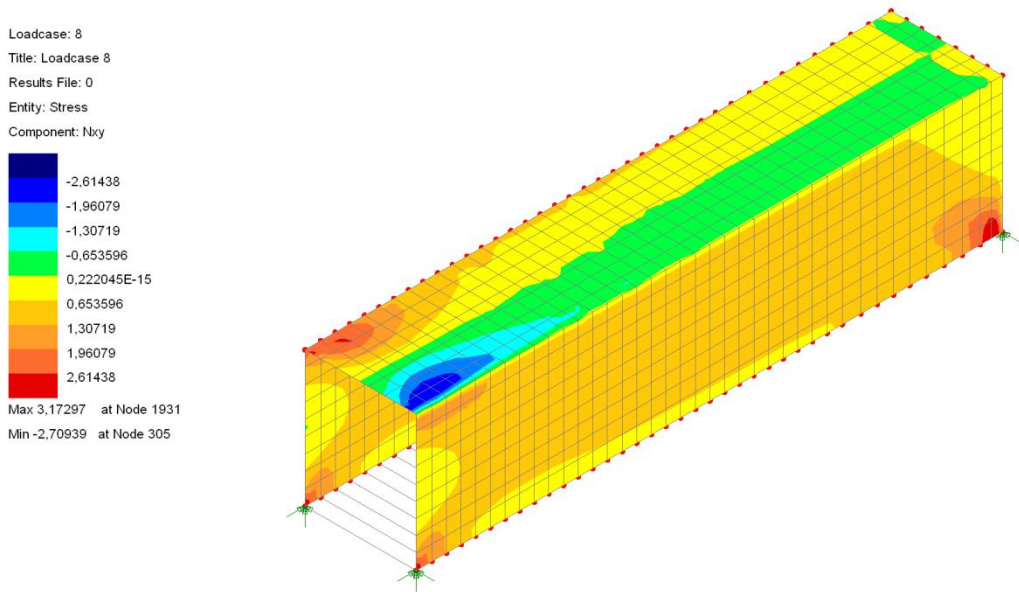


Figura A.2.1.369 – Vista geral – Esforço Nx

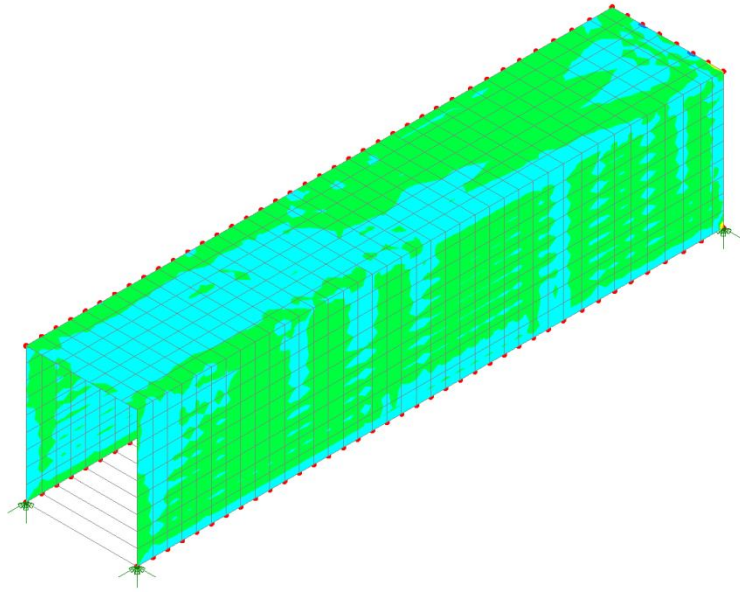


**Figura A.2.1.370 – Vista geral – Esforço Ny**



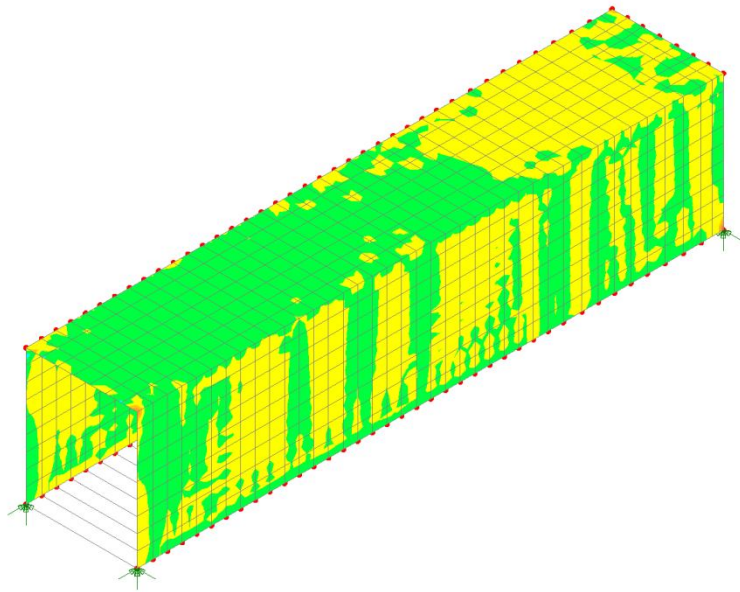
**Figura A.2.1.371 – Vista geral – Esforço Nxy**

Loadcase: 8  
 Title: Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -0,0374893E-3  
 -0,0249929E-3  
 -0,0124964E-3  
 0,0  
 0,0124964E-3  
 0,0249929E-3  
 0,0374893E-3  
 0,0499858E-3  
 0,0624822E-3  
 Max 0,0660298E-3 at Node 483  
 Min -0,0464382E-3 at Node 2201



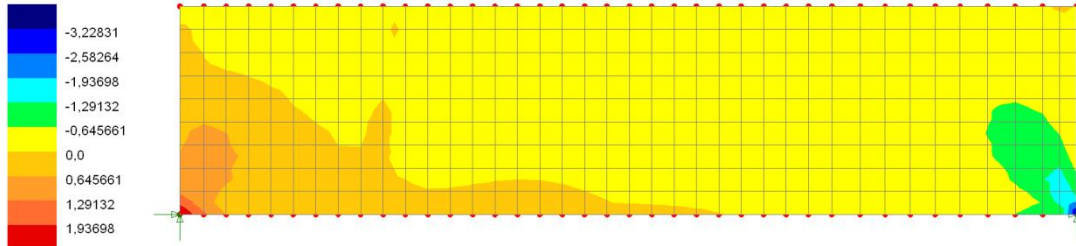
**Figura A.2.1.372 – Vista geral – Esforço Mx**

Loadcase: 8  
 Title: Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Component: My  
 -0,0525268E-3  
 -0,0393951E-3  
 -0,0262634E-3  
 -0,0131317E-3  
 3,38813E-21  
 0,0131317E-3  
 0,0262634E-3  
 0,0393951E-3  
 0,0525268E-3  
 Max 0,0547551E-3 at Node 160  
 Min -0,0634302E-3 at Node 392



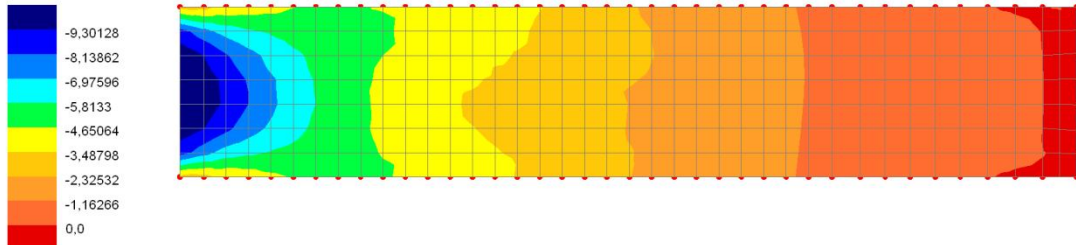
**Figura A.2.1.373 – Vista geral – Esforço My**

Loadcase: 8  
 Title: Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Component: Nx  
 Max 2,57817 at Node 1  
 Min -3,23278 at Node 160



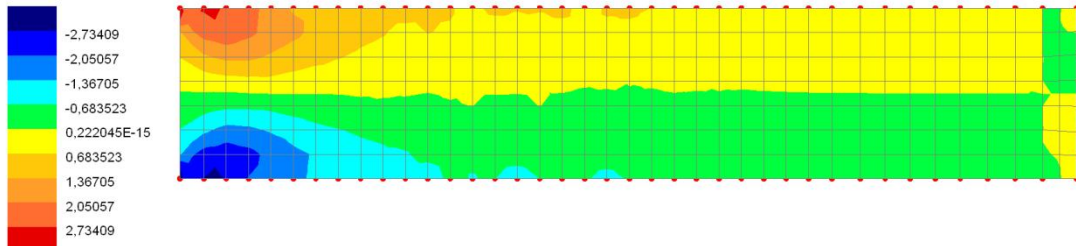
**Figura A.2.1.374 – Face lateral – Esforço Nx**

Loadcase: 8  
 Title: Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 Max 0,0849274 at Node 2051  
 Min -10,379 at Node 207



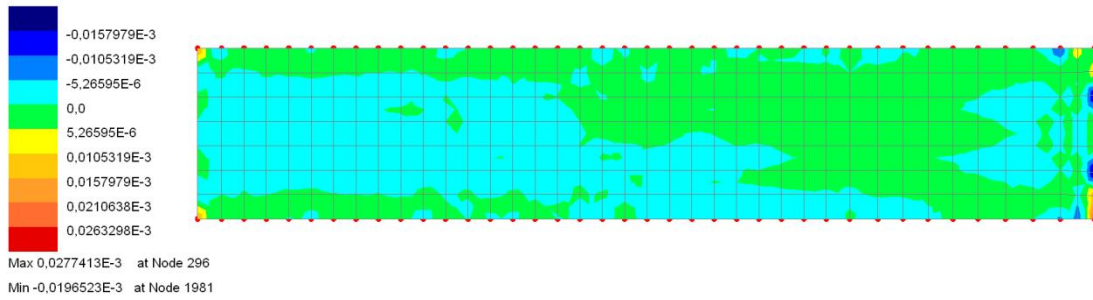
**Figura A.2.1.375 – Face lateral – Esforço Ny**

Loadcase: 8  
 Title: Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 Max 3,03743 at Node 237  
 Min -3,11427 at Node 271



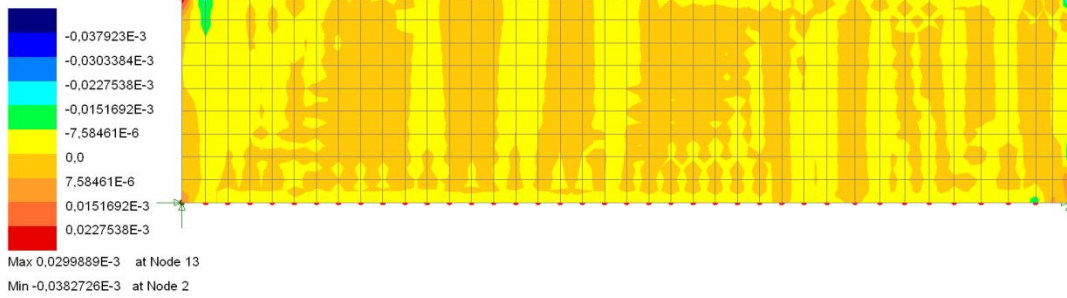
**Figura A.2.1.376 – Face lateral – Esforço Nxy**

Loadcase: 8  
Title: Loadcase 8  
Results File: 0  
Entity: Stress  
Component: Mx



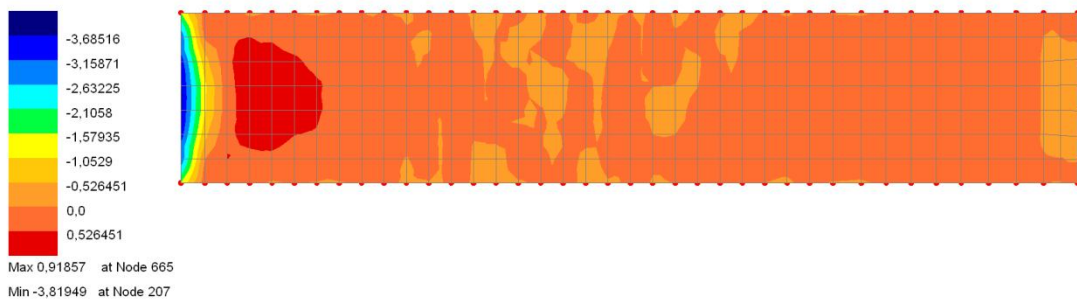
**Figura A.2.1.377 – Face lateral – Esforço Mx**

Loadcase: 8  
Title: Loadcase 8  
Results File: 0  
Entity: Stress  
Component: My



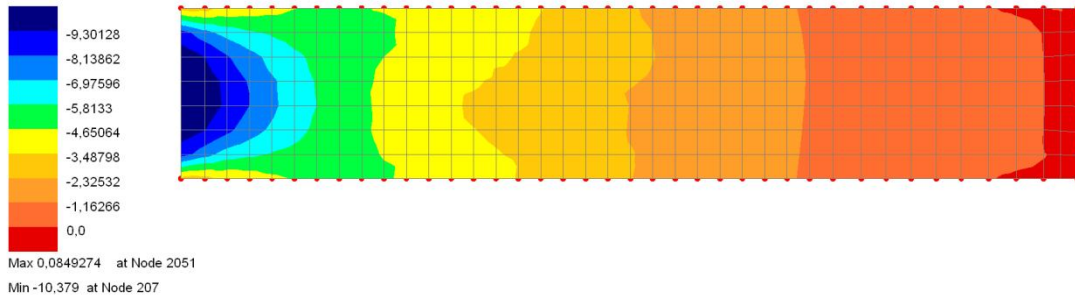
**Figura A.2.1.378 – Face lateral – Esforço My**

Loadcase: 8  
Title: Loadcase 8  
Results File: 0  
Entity: Stress  
Component: Nx



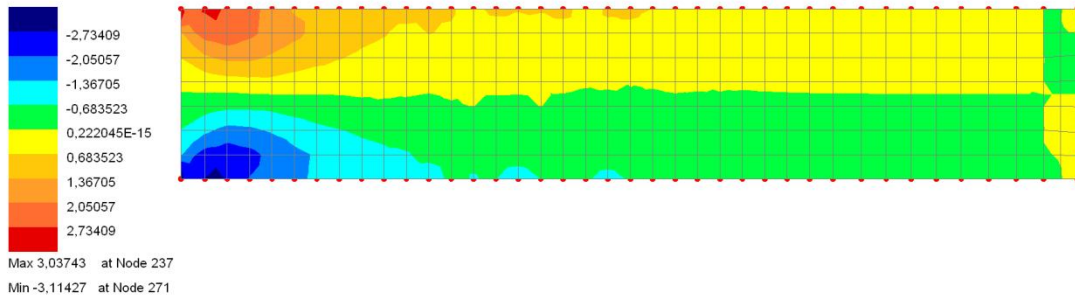
**Figura A.2.1.379 – Cobertura – Esforço Nx**

Loadcase: 8  
Title: Loadcase 8  
Results File: 0  
Entity: Stress  
Component: Ny



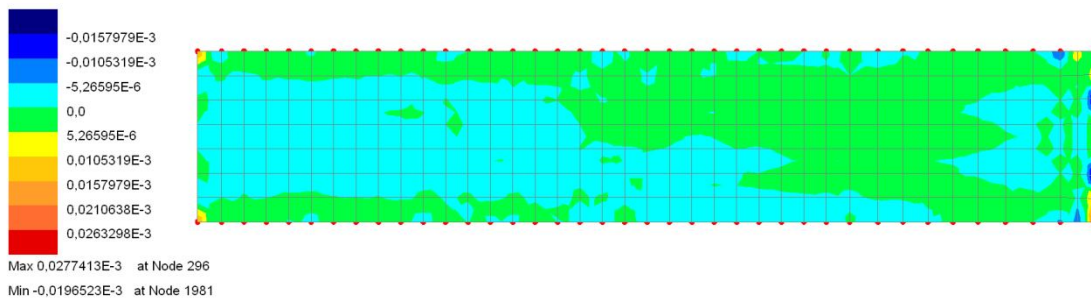
**Figura A.2.1.380 – Cobertura – Esforço Ny**

Loadcase: 8  
Title: Loadcase 8  
Results File: 0  
Entity: Stress  
Component: Nxy

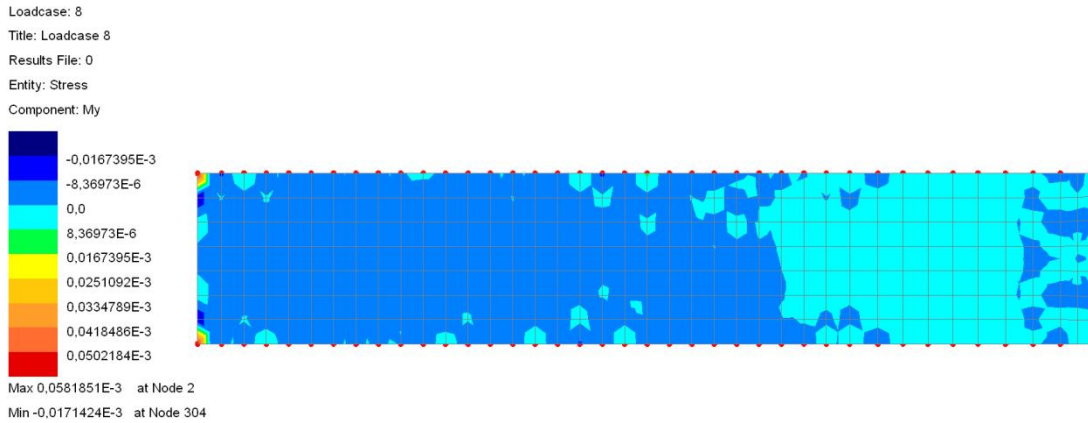


**Figura A.2.1.381 – Cobertura – Esforço Nxy**

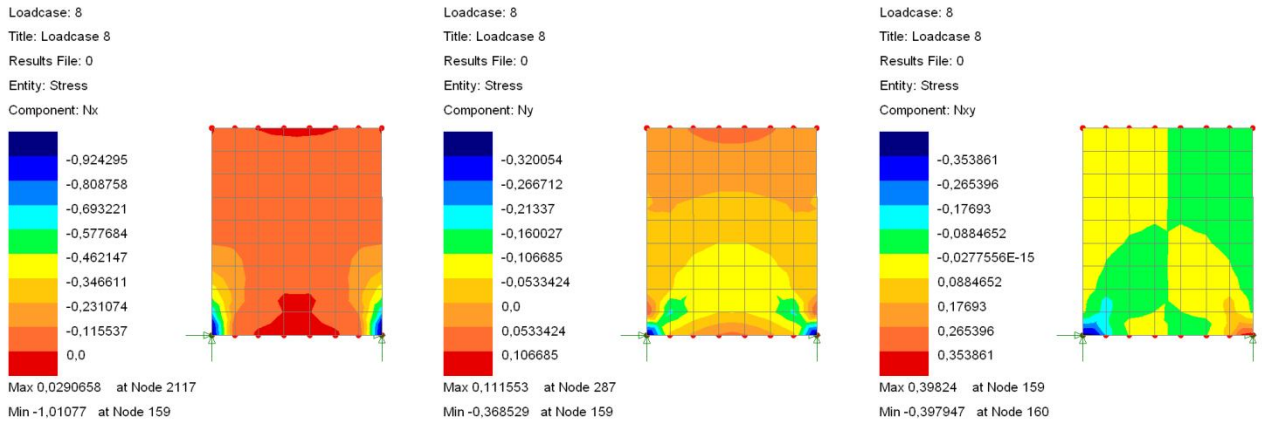
Loadcase: 8  
Title: Loadcase 8  
Results File: 0  
Entity: Stress  
Component: Mx



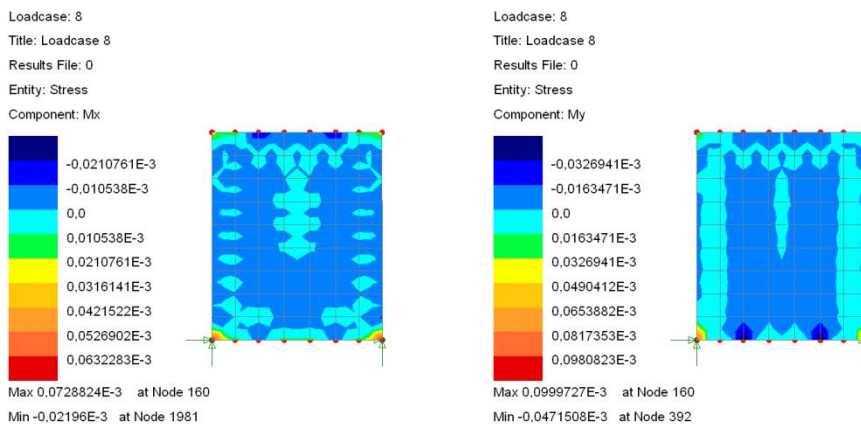
**Figura A.2.1.382 – Cobertura – Esforço Mx**



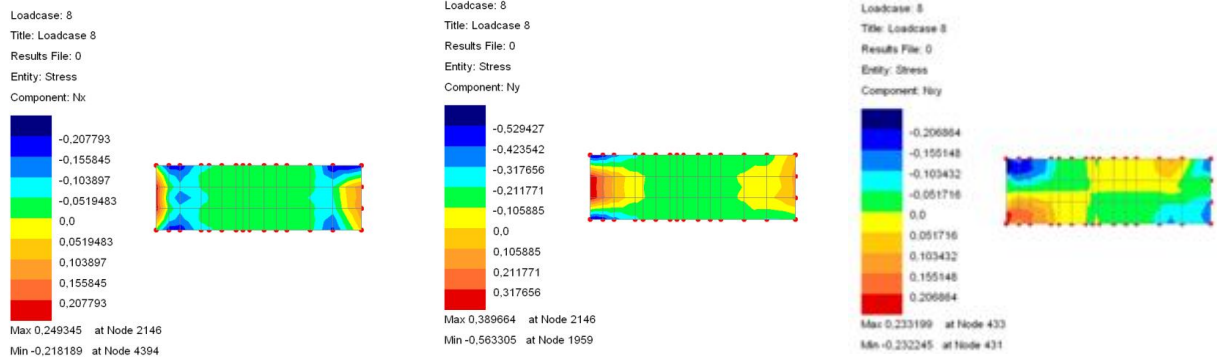
**Figura A.2.1.383 – Cobertura – Esforço My**



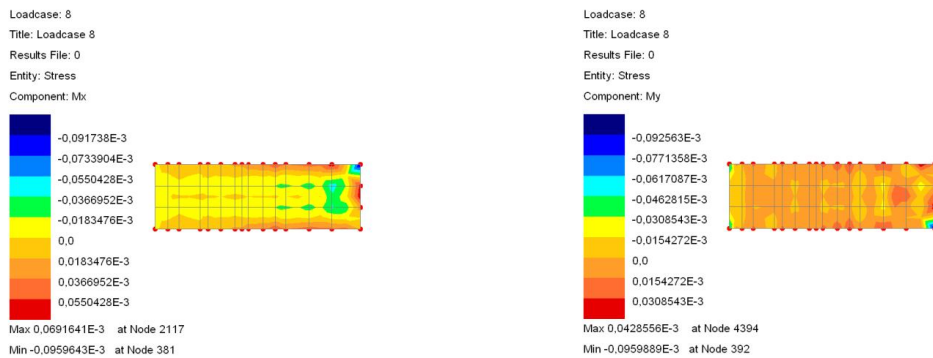
**Figura A.2.1.384 – Face frontal – Esforço Nx, Ny e Nxy**



**Figura A.2.1.385 – Face frontal – Esforço Mx e My**

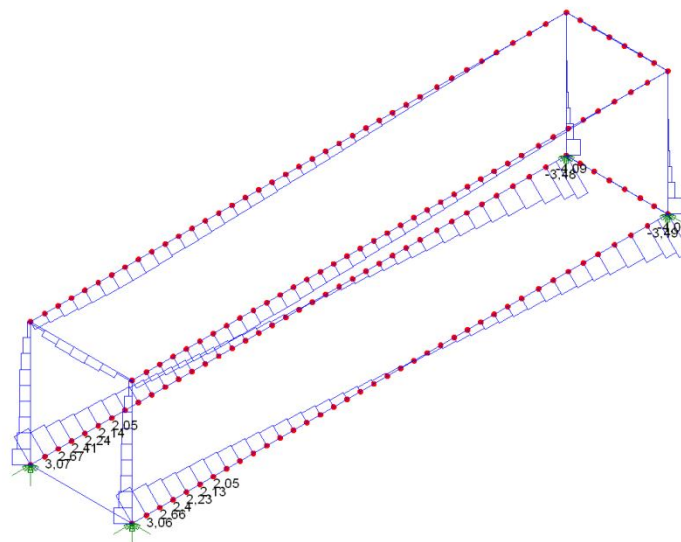


**Figura A.2.1.386 – Abertura para os garfos - FP – Esforço Nx, Ny e Nxy**



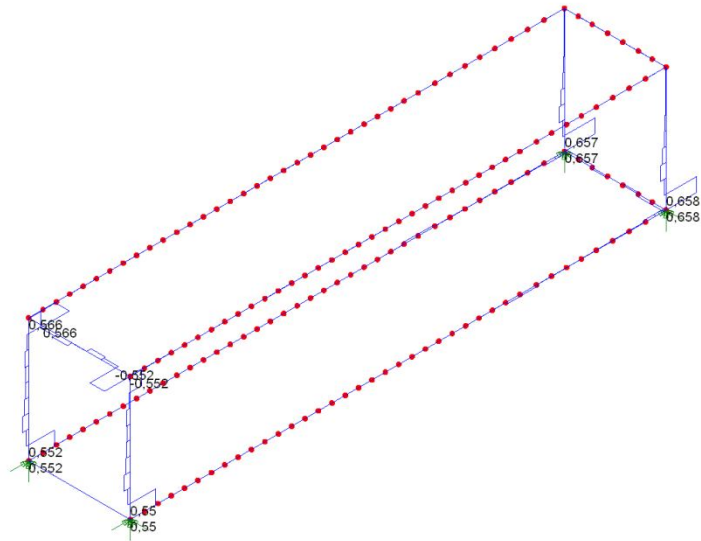
**Figura A.2.1.387 – Abertura para os garfos - FP – Esforço Mx e My**

Scale=1:68,6304  
Zoom: 100,0  
Eye: (-0,57735; -0,57735; 0,57735)  
Linear/Dynamic Analysis  
Loadcase: 8  
Loadcase 8  
Results File: 0  
Entity: Stress  
Diagram Component: Fx  
MAX 3.306 at Elk/GP 7/1  
MIN -4.397 at Elk/GP 731/1  
DIAGRAM Scale: 1/0.1000  
Peak/Value Component =Fx  
Peak Range(%): 15.00  
Max 3.065 at Node 26  
Min -4.093 at Node 1930



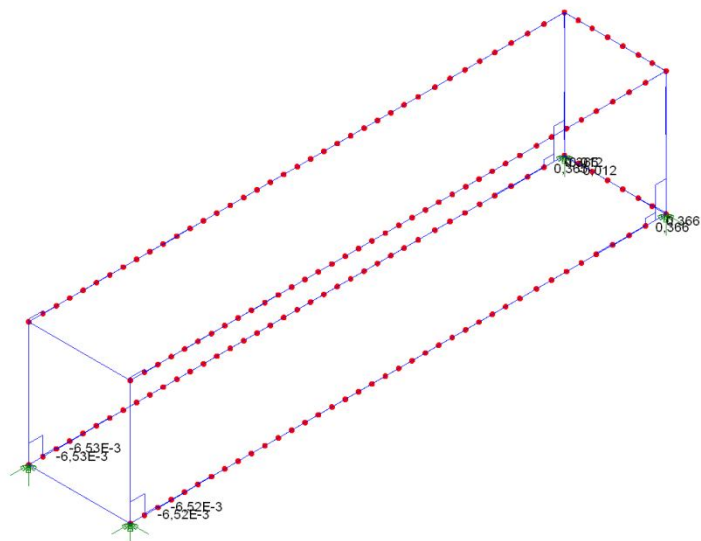
**Figura A.2.1.388 – Vista geral – Diagrama Fx**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.6577 at Elt/GP 120/1  
 MIN -0.5521 at Elt/GP 32/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 15,00  
 Max 0.6577 at Elt/GP 120/1  
 Min -0.5521 at Elt/GP 32/1



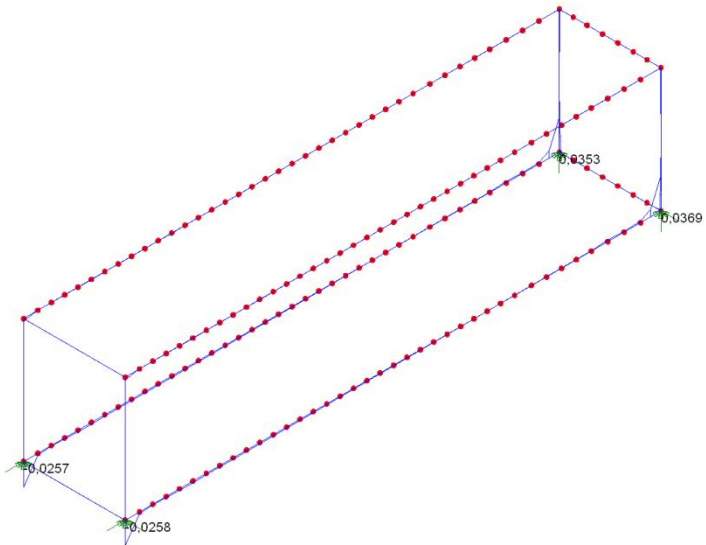
**Figura A.2.1.389 – Vista geral – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.3657 at Elt/GP 731/1  
 MIN -0.1201E-01 at Elt/GP 2166/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 1.500  
 Max 0.3657 at Elt/GP 731/1  
 Min -0.1201E-01 at Elt/GP 2166/1



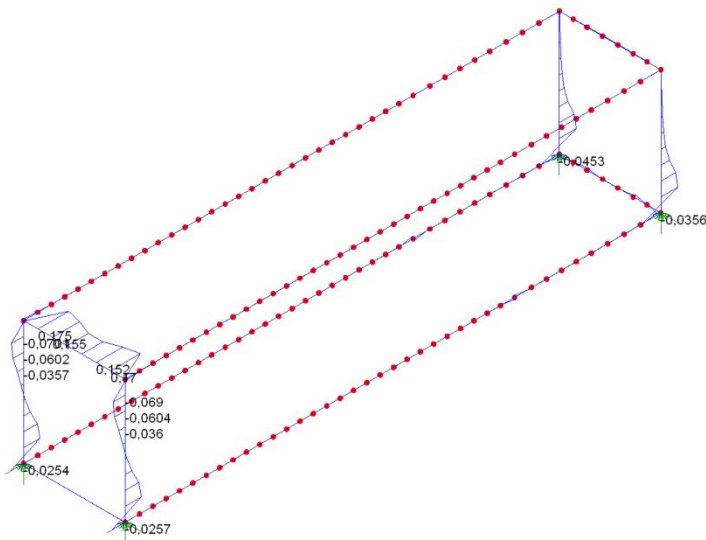
**Figura A.2.1.390 – Vista geral – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0,1062 at Elt/GP 731/11  
 MIN -0,7709E-01 at Elt/GP 7/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =My  
 Peak Range(%): 20,00  
 Max 0,3692E-01 at Node 160  
 Min -0,2578E-01 at Node 12



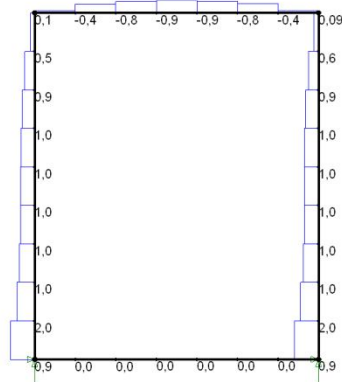
**Figura A.2.1.391 – Vista geral – Diagrama My**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0,1748 at Elt/GP 26/11  
 MIN -0,1065 at Elt/GP 120/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 20,00  
 Max 0,1748 at Node 197  
 Min -0,7011E-01 at Node 42



**Figura A.2.1.392 – Vista geral – Diagrama Mz**

Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 1,842 at Elt/GP 1/1  
 MIN -0,9405 at Elt/GP 29/1  
 DIAGRAM Scale: 1/0,1667  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 1,607 at Node 104  
 Min -0,9128 at Node 205



Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0,5657 at Elt/GP 26/1  
 MIN -0,5521 at Elt/GP 32/1  
 DIAGRAM Scale: 1/0,1667  
 Peak/Value Component =Fy  
 Peak Range(%): 10,00  
 Max 0,4105 at Node 2  
 Min -0,2476 at Node 304

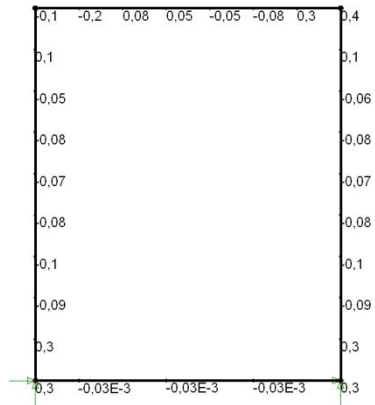


Figura A.2.1.393 – Face da porta – Diagrama Fx e Fy

Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0,1366E-03 at Elt/GP 53/1  
 MIN -0,2303E-03 at Elt/GP 17/1  
 DIAGRAM Scale: 1/0,1667  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 0,1266E-03 at Node 155  
 Min -0,2191E-03 at Node 42

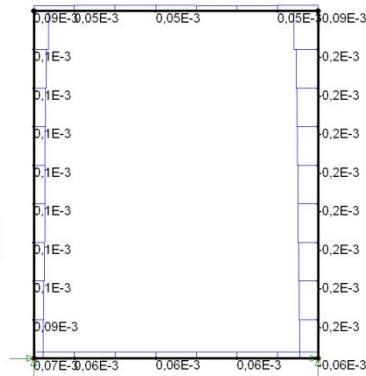
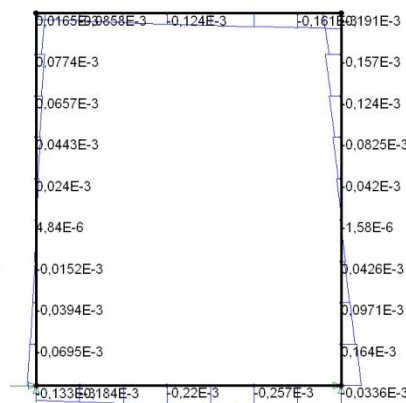


Figura A.2.1.394 – Face da porta – Diagrama Fz

Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0,2259E-03 at Elt/GP 1/1  
 MIN -0,2931E-03 at Elt/GP 11/1  
 DIAGRAM Scale: 1/0,1667  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0,1639E-03 at Node 4  
 Min -0,2749E-03 at Node 23



Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0,1748 at Elt/GP 26/11  
 MIN -0,7709E-01 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0,1667  
 Peak/Value Component =Mz  
 Peak Range(%): 10,00  
 Max 0,1748 at Node 197  
 Min -0,7011E-01 at Node 42

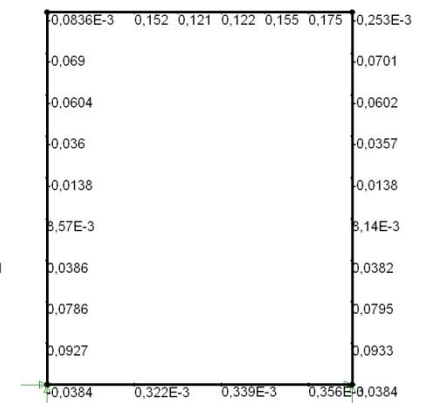
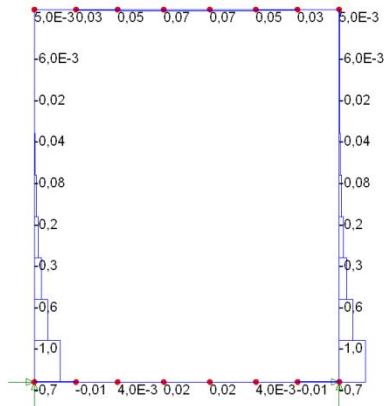
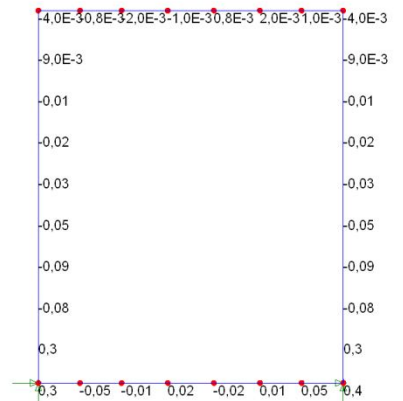


Figura A.2.1.395 – Face da porta – Diagrama My e Mz

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.7052E-01 at Elt/GP 759/1  
 MIN -1.432 at Elt/GP 65/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 101.0  
 Max 0.6658E-01 at Node 1994  
 Min -1.092 at Node 287

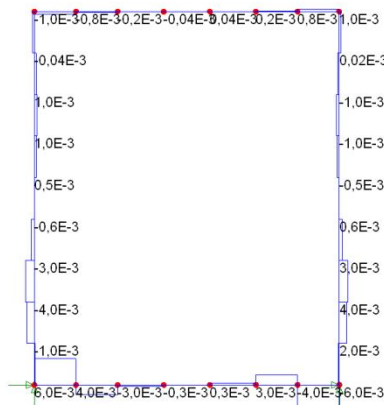


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.6577 at Elt/GP 120/1  
 MIN -0.1164 at Elt/GP 122/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 101.0  
 Max 0.3547 at Node 159  
 Min -0.9384E-01 at Node 1903



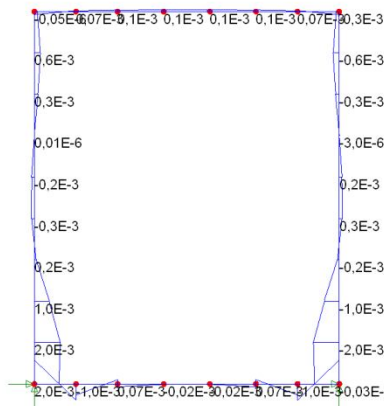
**Figura A.2.1.396 – Face frontal – Diagrama Fx e Fy**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1200E-01 at Elt/GP 1980/1  
 MIN -0.1201E-01 at Elt/GP 2166/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fz  
 Peak Range(%): 101.0  
 Max 0.6194E-02 at Node 160  
 Min -0.6187E-02 at Node 159

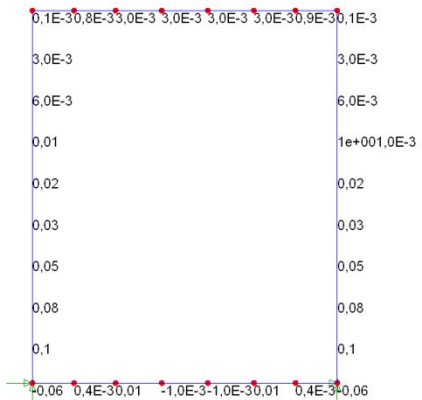


**Figura A.2.1.397 – Face frontal – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.2417E-02 at Elt/GP 121/1  
 MIN -0.2426E-02 at Elt/GP 66/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =My  
 Peak Range(%): 101.0  
 Max 0.2415E-02 at Node 441  
 Min -0.2418E-02 at Node 287

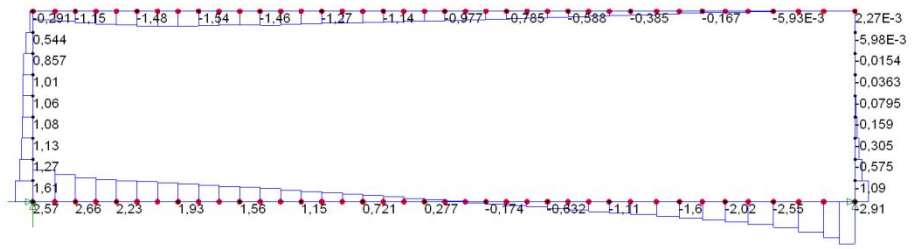


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.9652E-01 at Elt/GP 120/11  
 MIN -0.1065 at Elt/GP 120/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 101.0  
 Max 0.9651E-01 at Node 441  
 Min -0.6075E-01 at Node 160



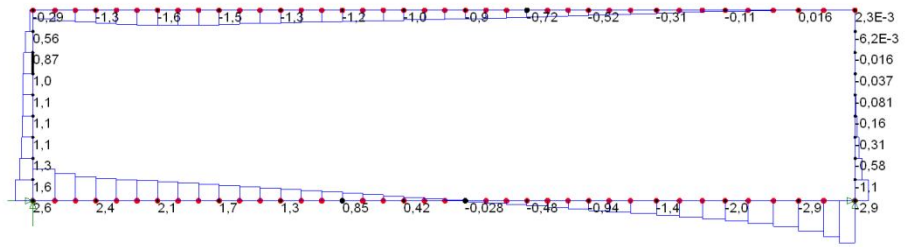
**Figura A.2.1.398 – Face da porta – Diagrama My e Mz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 3.298 at Elt/GP 20/1  
 MIN -4.397 at Elt/GP 731/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 3.057 at Node 37  
 Min -4.093 at Node 1930



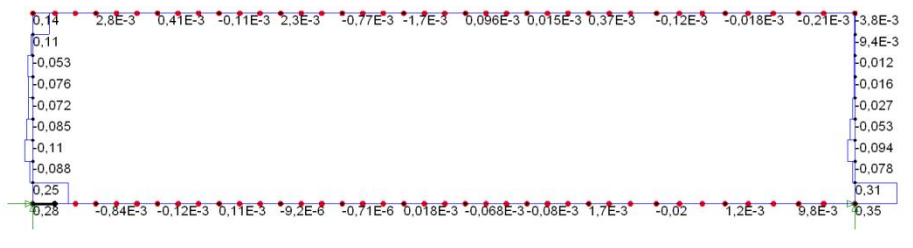
**Figura A.2.1.399 – Face lateral 1 – Diagrama Fx**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 3.306 at Elt/GP 7/1  
 MIN -4.389 at Elt/GP 46/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 3.065 at Node 26  
 Min -4.085 at Node 379



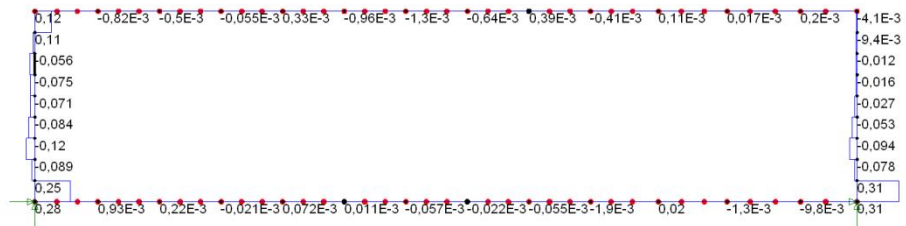
**Figura A.2.1.400 – Face lateral 2 – Diagrama Fx**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.6577 at Elt/GP 120/1  
 MIN -0.1295 at Elt/GP 47/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 10,00  
 Max 0.3521 at Node 160  
 Min -0.1134 at Node 116



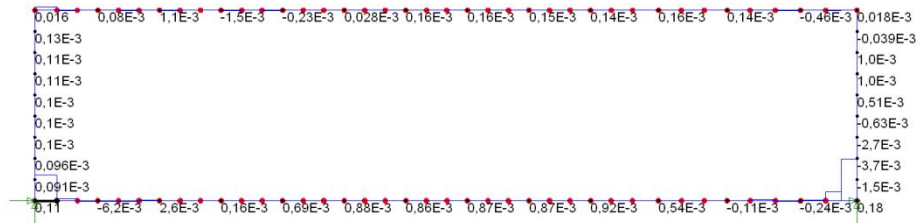
**Figura A.2.1.401 – Face lateral 1 – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.6565 at Elt/GP 65/1  
 MIN -0.1339 at Elt/GP 3/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 10,00  
 Max 0.3087 at Node 287  
 Min -0.1156 at Node 8



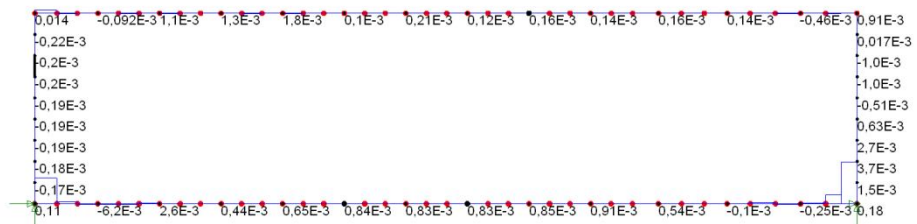
**Figura A.2.1.402 – Face lateral 2 – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.3657 at Elt/GP 731/1  
 MIN -0.6518E-02 at Elt/GP 88/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 0.2223 at Node 1930  
 Min -0.6198E-02 at Node 55



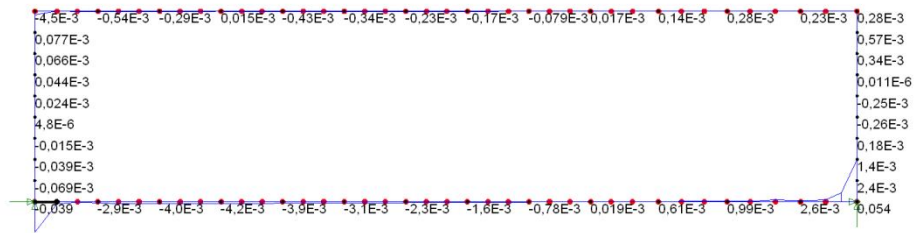
**Figura A.2.1.403 – Face lateral 1 – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.3653 at Elt/GP 46/1  
 MIN -0.6531E-02 at Elt/GP 81/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 0.2220 at Node 379  
 Min -0.6202E-02 at Node 54



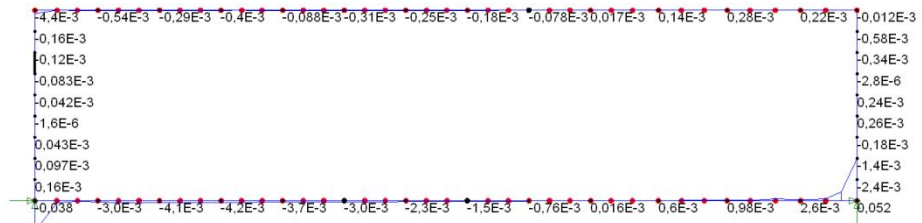
**Figura A.2.1.404 – Face lateral 2 – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.1062 at Etl/GP 731/11  
 MIN -0.7708E-01 at Etl/GP 20/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0.5427E-01 at Node 160  
 Min -0.3859E-01 at Node 12



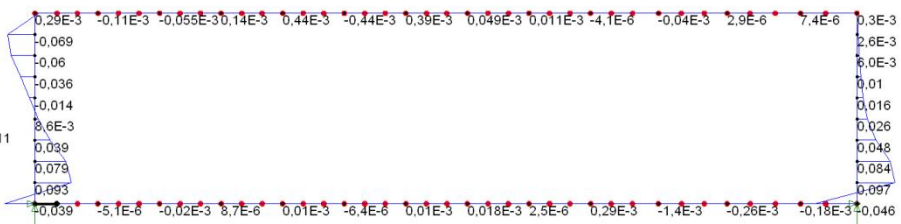
**Figura A.2.1.405 – Face lateral 1 – Diagrama My**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.1061 at Etl/GP 46/11  
 MIN -0.7709E-01 at Etl/GP 7/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0.5190E-01 at Node 159  
 Min -0.3843E-01 at Node 1



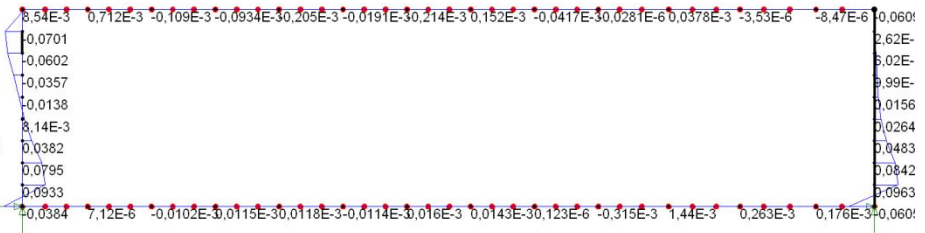
**Figura A.2.1.406 – Face lateral 2 – Diagrama My**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.9652E-01 at Etl/GP 120/11  
 MIN -0.1065 at Etl/GP 120/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 10,00  
 Max 0.9651E-01 at Node 441  
 Min -0.6900E-01 at Node 155



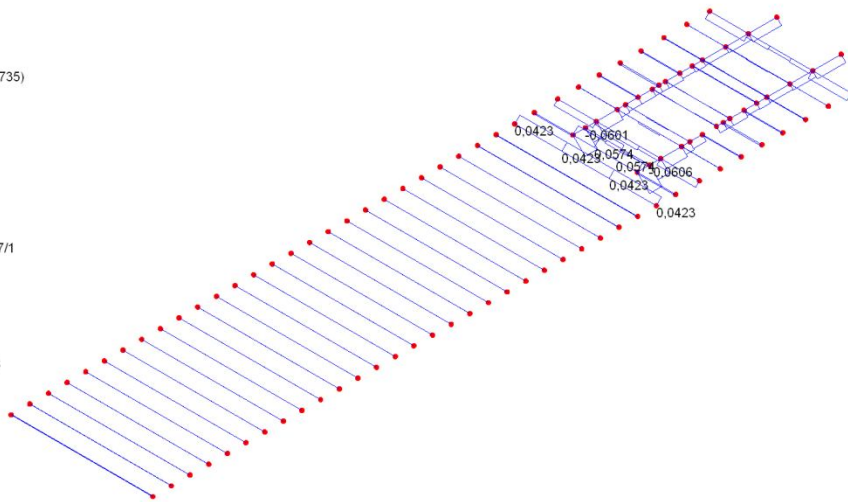
**Figura A.2.1.407 – Face lateral 1 – Diagrama Mz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0;-1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.9631E-01 at Elt/GP 65/11  
 MIN -0.1063 at Elt/GP 65/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 10.00  
 Max 0.9630E-01 at Node 287  
 Min -0.7011E-01 at Node 42



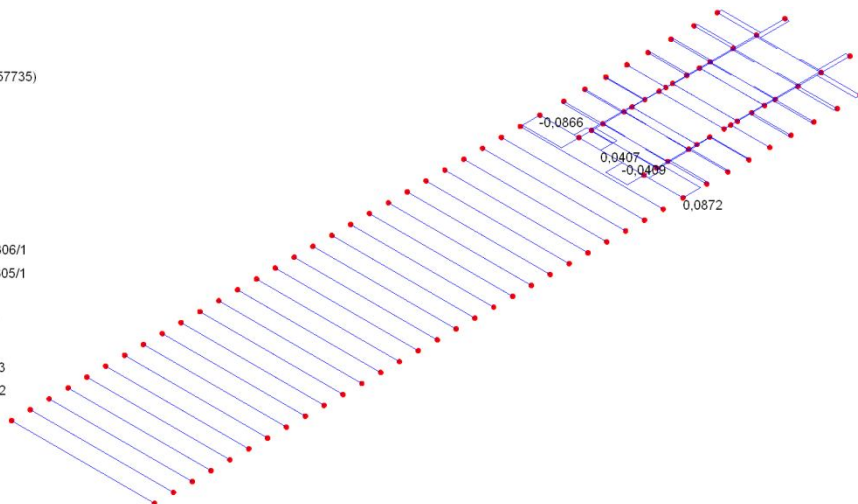
**Figura A.2.1.408 – Face lateral 2 – Diagrama Mz**

Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735;-0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.7014E-01 at Elt/GP 817/1  
 MIN -0.1028 at Elt/GP 757/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 15.00  
 Max 0.5745E-01 at Node 2146  
 Min -0.6057E-01 at Node 395

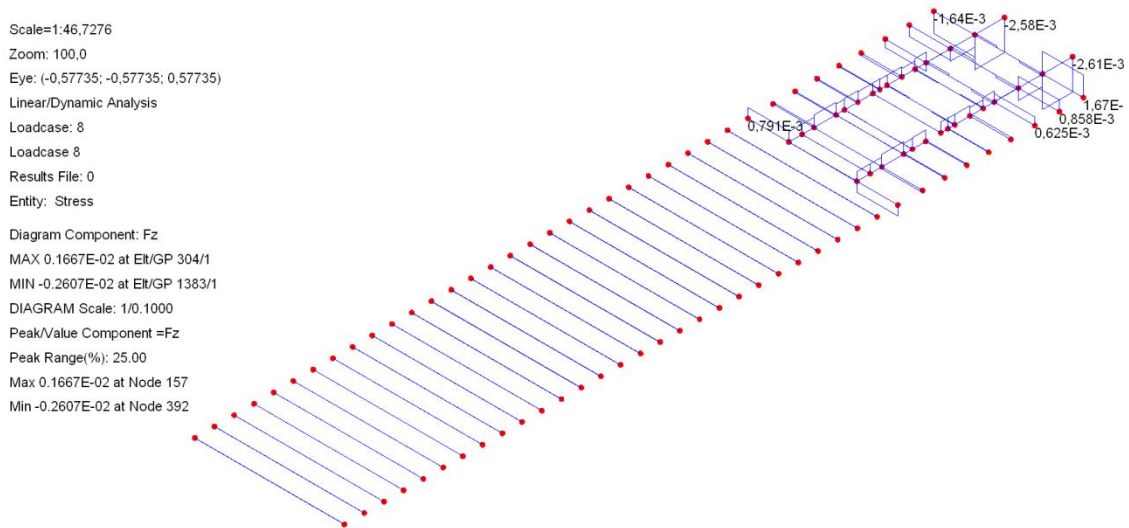


**Figura A.2.1.409 – Estrutura da base – Diagrama Fx**

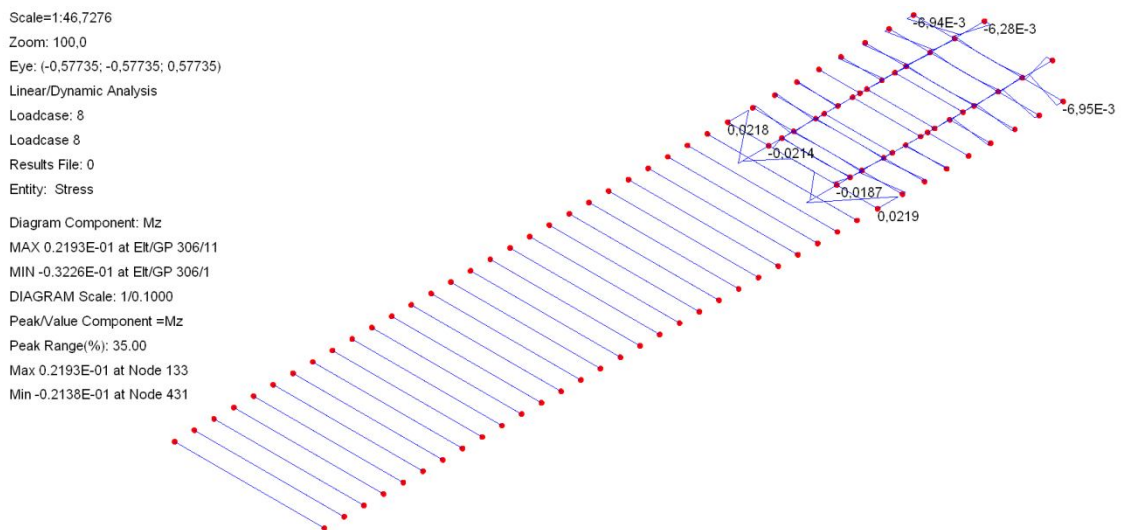
Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735;-0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.8720E-01 at Elt/GP 306/1  
 MIN -0.8659E-01 at Elt/GP 305/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 30.00  
 Max 0.8720E-01 at Node 133  
 Min -0.8659E-01 at Node 132



**Figura A.2.1.410 – Estrutura da base – Diagrama Fy**



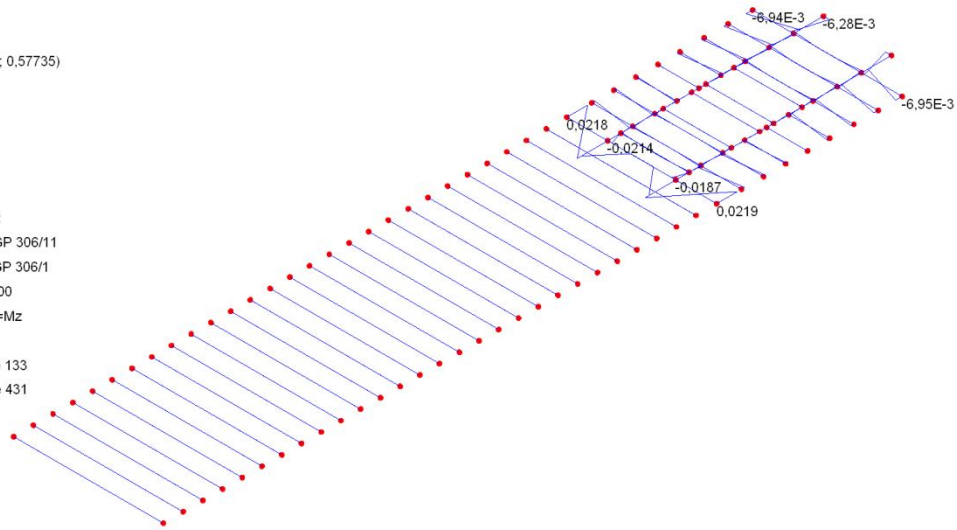
**Figura A.2.1.411 – Estrutura da base – Diagrama Fz**



**Figura A.2.1.412 – Estrutura da base – Diagrama My**

Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress

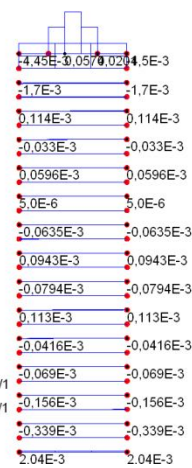
Diagram Component: Mz  
 MAX 0.2193E-01 at Elt/GP 306/11  
 MIN -0.3226E-01 at Elt/GP 306/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.2193E-01 at Node 133  
 Min -0.2138E-01 at Node 431



**Figura A.2.1.413 – Estrutura da base – Diagrama Mz**

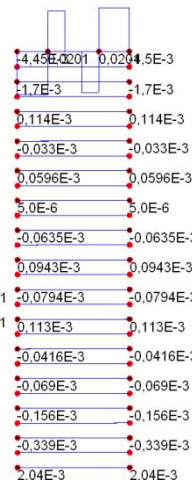
Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress

Peak/Value Component =Fx  
 Peak Range(%): 35.00  
 Max 0.5745E-01 at Node 2146  
 Min -0.4496E-02 at Node 133  
 Diagram Component: Fx  
 MAX 0.7014E-01 at Elt/GP 817/1  
 MIN -0.4496E-02 at Elt/GP 306/1  
 DIAGRAM Scale: 1/0.1000



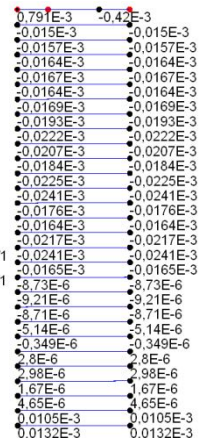
Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress

Diagram Component: Fy  
 MAX 0.8720E-01 at Elt/GP 306/1  
 MIN -0.8659E-01 at Elt/GP 305/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 45.00  
 Max 0.5745E-01 at Node 2146  
 Min -0.4496E-02 at Node 133



Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress

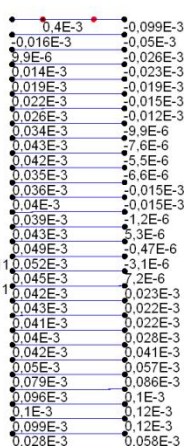
Diagram Component: Fz  
 MAX 0.7906E-03 at Elt/GP 305/1  
 MIN -0.8068E-03 at Elt/GP 306/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 49.00  
 Max 0.7906E-03 at Node 132  
 Min -0.8068E-03 at Node 133



**Figura A.2.1.414 – Perfis transversais – Diagrama Fx, Fy e Fz**

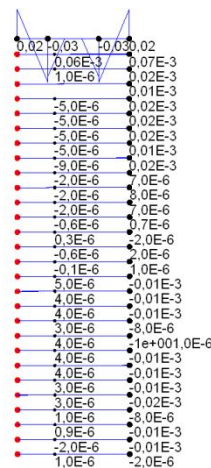
Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress

Diagram Component: My  
 MAX 0.4260E-03 at Elt/GP 305/11  
 MIN -0.9899E-04 at Elt/GP 306/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 49.00  
 Max 0.3964E-03 at Node 431  
 Min -0.9899E-04 at Node 133



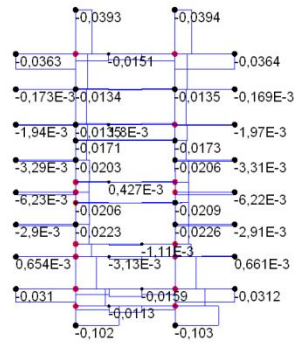
Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress

Diagram Component: Mz  
 MAX 0.2193E-01 at Elt/GP 306/11  
 MIN -0.3226E-01 at Elt/GP 306/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.2193E-01 at Node 133  
 Min -0.3013E-01 at Node 433



**Figura A.2.1.415 – Perfis transversais – Diagrama My e Mz**

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.2568E-02 at EII/GP 887/1  
 MIN -0.1028 at EII/GP 757/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 35.00  
 Max 0.2158E-02 at Node 4165  
 Min -0.1028 at Node 433



Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.2368E-01 at EII/GP 760/1  
 MIN -0.2381E-01 at EII/GP 757/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 35.00  
 Max 0.2368E-01 at Node 431  
 Min -0.2381E-01 at Node 433

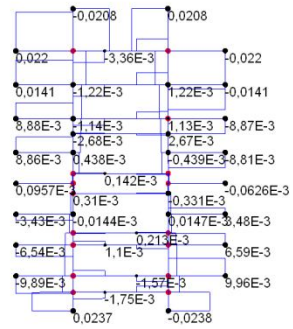


Figura A.2.1.416 – Abertura para os garfos - Perfis transversais – Diagrama Fx e Fy

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1667E-02 at EII/GP 304/1  
 MIN -0.2607E-02 at EII/GP 1383/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 35.00  
 Max 0.1667E-02 at Node 157  
 Min -0.2607E-02 at Node 392

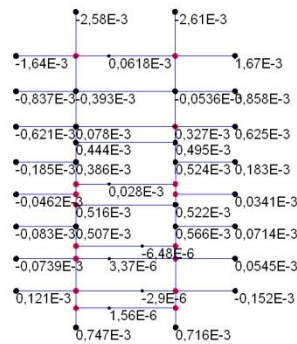
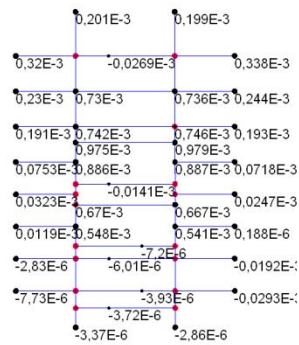


Figura A.2.1.417 – Abertura para os garfos - Perfis transversais – Diagrama Fz

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.1673E-02 at EII/GP 856/1  
 MIN -0.6981E-03 at EII/GP 303/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 35.00  
 Max 0.9790E-03 at Node 419  
 Min -0.2930E-04 at Node 136



Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 8  
 Loadcase 8  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.6743E-02 at EII/GP 304/1  
 MIN -0.6947E-02 at EII/GP 304/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.6294E-02 at Node 392  
 Min -0.6947E-02 at Node 157

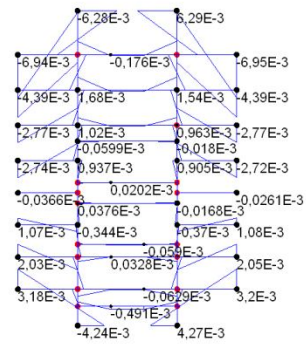


Figura A.2.1.418 – Abertura para os garfos - Perfis transversais – Diagrama My e Mz

## Caso de carga 8

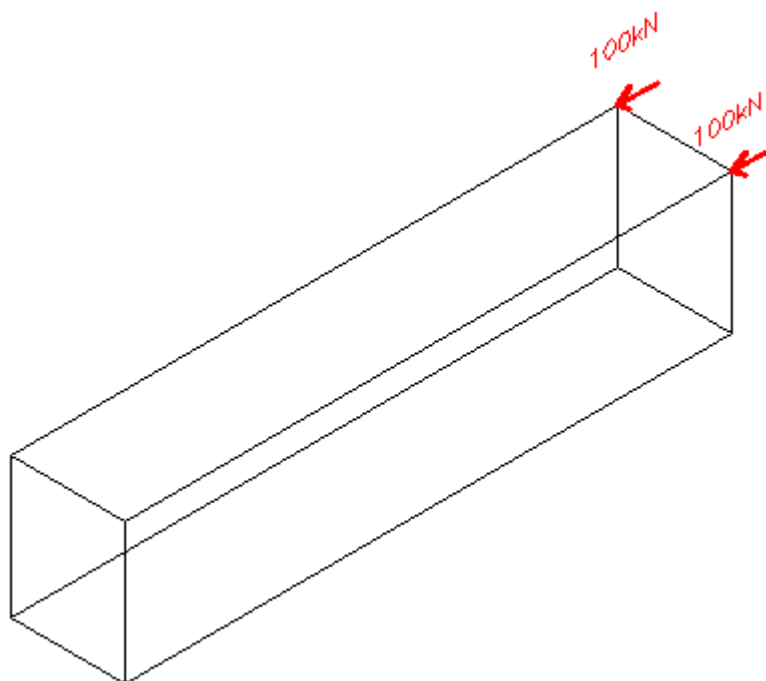


Figura A.2.1.419 - Caso de carga 8

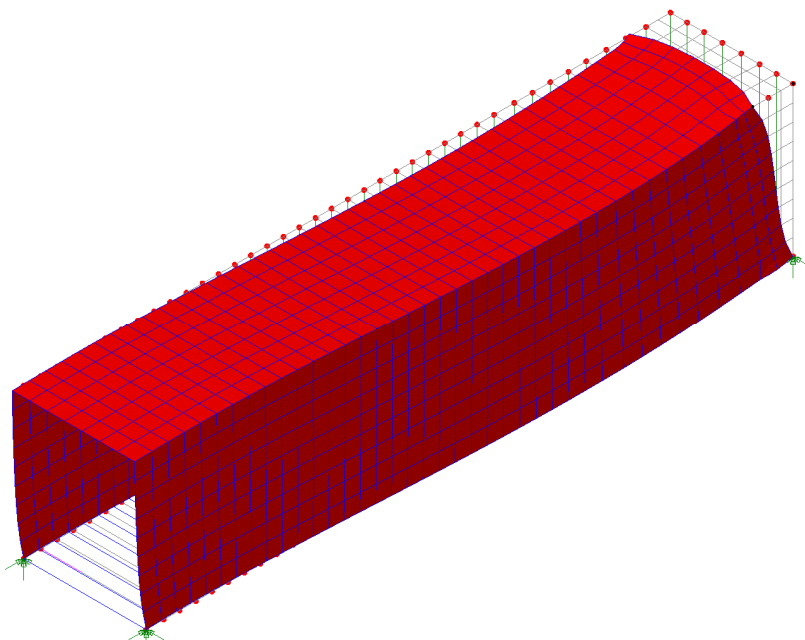
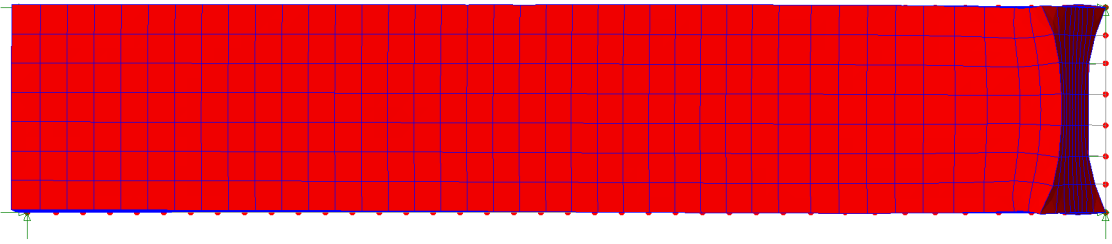
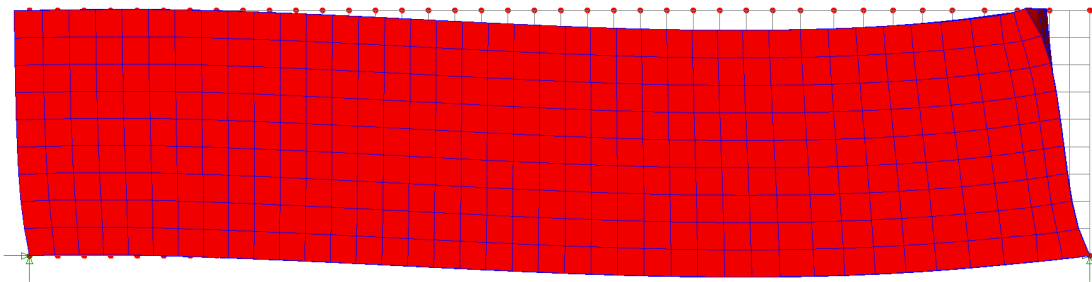


Figura A.2.1.420 – Vista geral da deformada

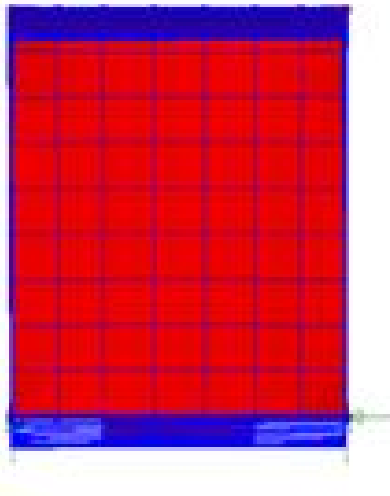
Deslocamento máximo: 1,05 mm.



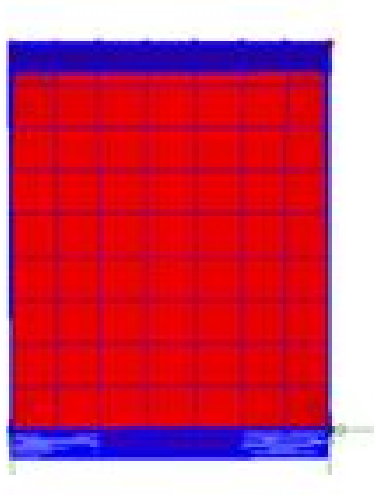
**Figura A.2.1.421 – Vista da cobertura deformada**



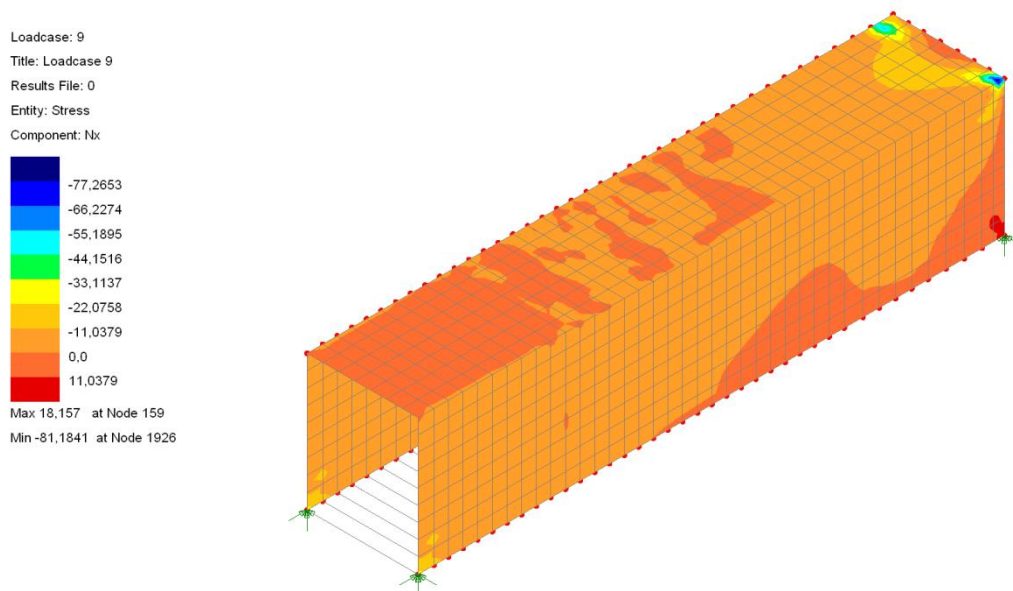
**Figura A.2.1.422 – Vista da face lateral deformada**



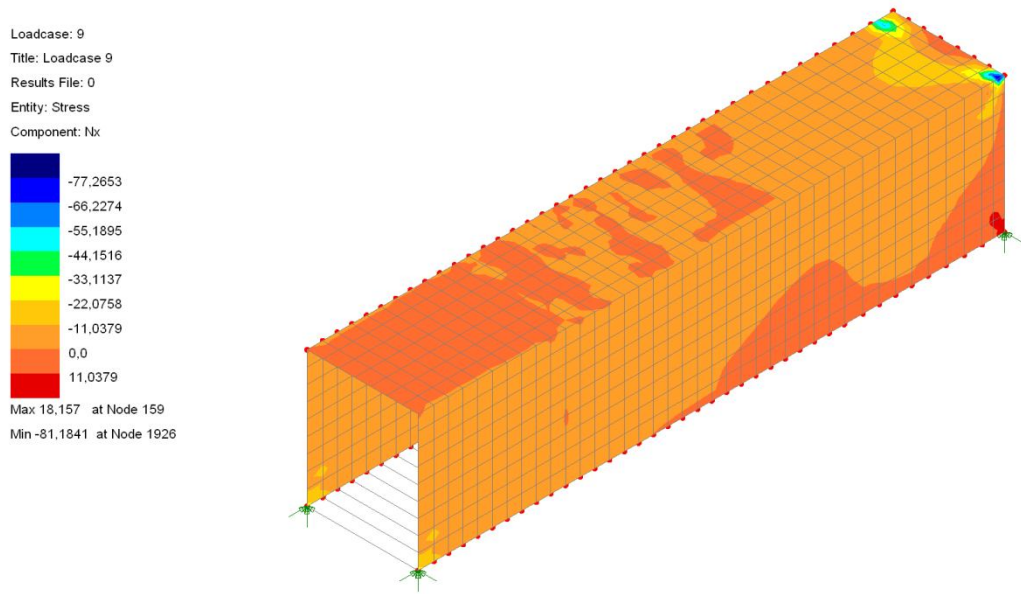
**Figura A.2.1.423 – Vista da face da porta deformada**



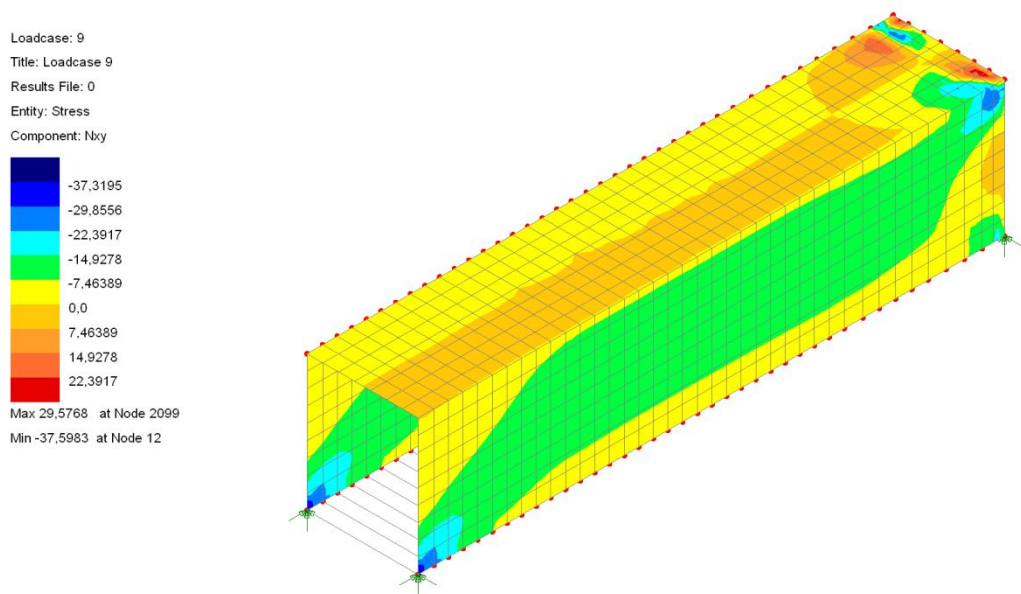
**Figura A.2.1.424 – Vista da face frontal deformada**



**Figura A.2.1.425 – Vista geral – Esforço Nx**

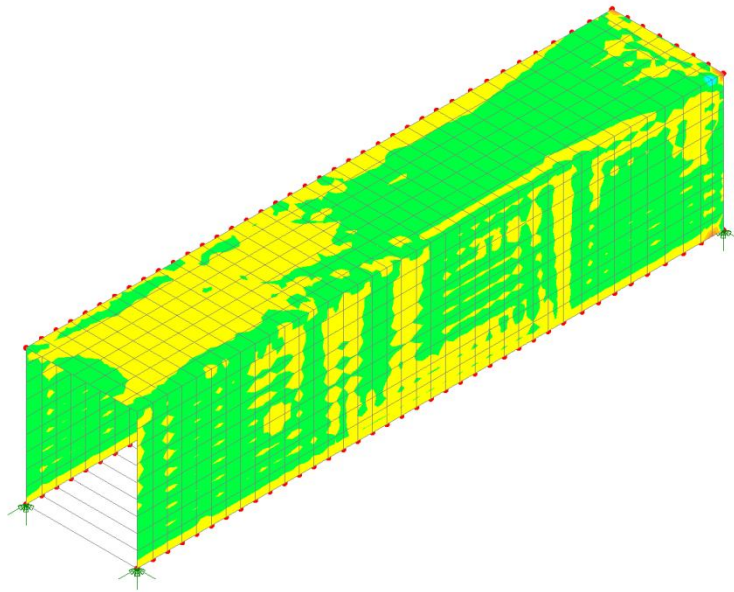


**Figura A.2.1.426 – Vista geral – Esforço Ny**



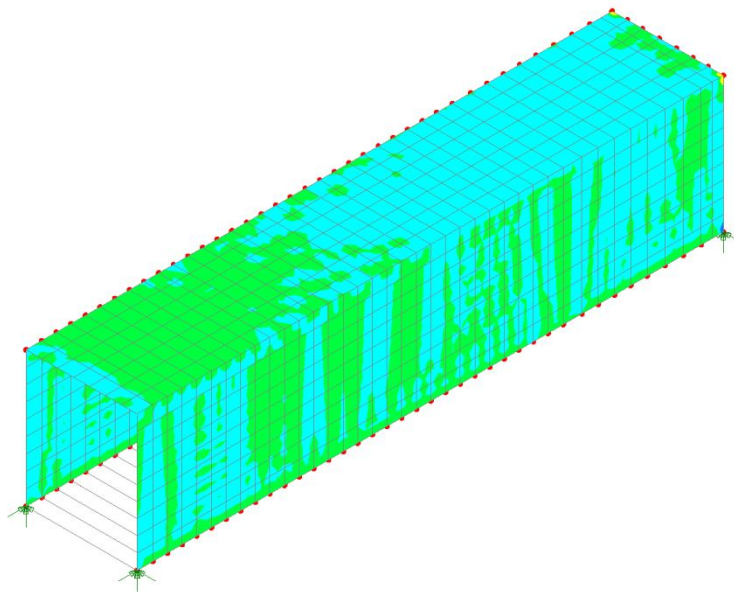
**Figura A.2.1.427 – Vista geral – Esforço Nxy**

Loadcase: 9  
 Title: Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -0,765609E-3  
 -0,574207E-3  
 -0,382805E-3  
 -0,191402E-3  
 0,0542101E-18  
 0,191402E-3  
 0,382805E-3  
 0,574207E-3  
 0,765609E-3  
 Max 0,769365E-3 at Node 296  
 Min -0,953256E-3 at Node 483



**Figura A.2.1.428 – Vista geral – Esforço Mx**

Loadcase: 9  
 Title: Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Component: My  
 -0,733407E-3  
 -0,488938E-3  
 -0,244469E-3  
 0,0  
 0,244469E-3  
 0,488938E-3  
 0,733407E-3  
 0,977876E-3  
 1,22235E-3  
 Max 1,46606E-3 at Node 433  
 Min -0,734163E-3 at Node 4394



**Figura A.2.1.429 – Vista geral – Esforço My**

Loadcase: 9  
Title: Loadcase 9  
Results File: 0  
Entity: Stress  
Component: Nx  
-33,3553  
-26,6842  
-20,0132  
-13,3421  
-6,67105  
0,0  
6,67105  
13,3421  
20,0132  
Max 25,4265 at Node 159  
Min -34,613 at Node 294

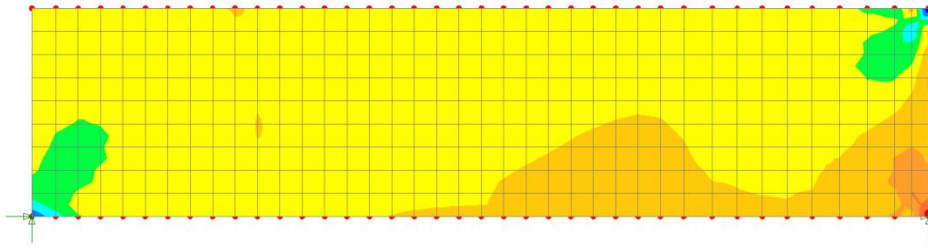


Figura A.2.1.430 – Face lateral – Esforço Nx

Loadcase: 9  
Title: Loadcase 9  
Results File: 0  
Entity: Stress  
Component: Ny  
-135,739  
-113,116  
-90,493  
-67,8697  
-45,2465  
-22,6232  
0,0  
22,6232  
45,2465  
Max 59,9037 at Node 159  
Min -143,705 at Node 294

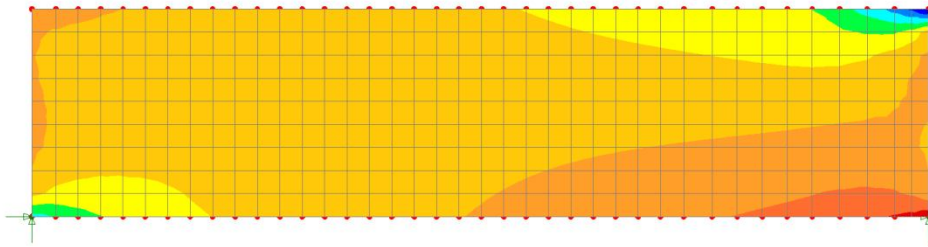


Figura A.2.1.431 – Face lateral – Esforço Ny

Loadcase: 9  
Title: Loadcase 9  
Results File: 0  
Entity: Stress  
Component: Nxy  
-49,3764  
-43,2044  
-37,0323  
-30,8603  
-24,6882  
-18,5162  
-12,3441  
-6,17205  
0,0  
Max 4,21464 at Node 313  
Min -51,3338 at Node 294

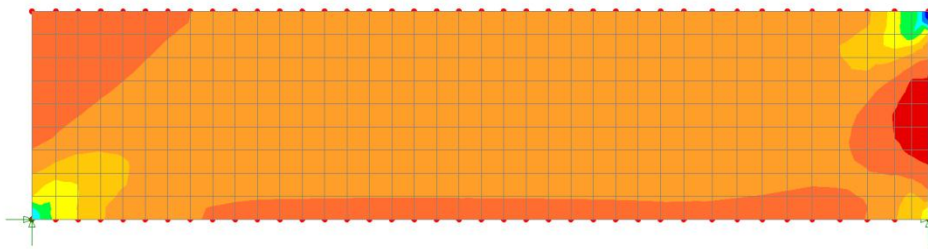
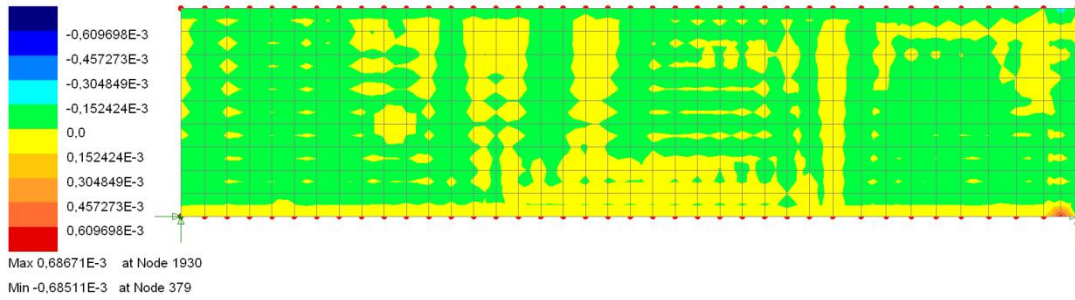


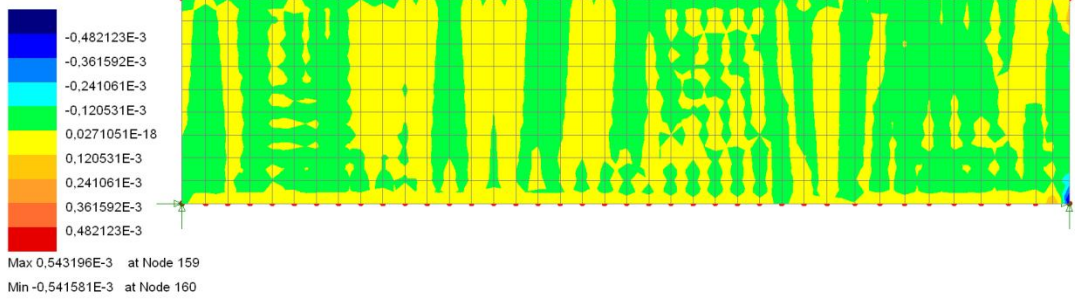
Figura A.2.1.432 – Face lateral – Esforço Nxy

Loadcase: 9  
Title: Loadcase 9  
Results File: 0  
Entity: Stress  
Component: Mx



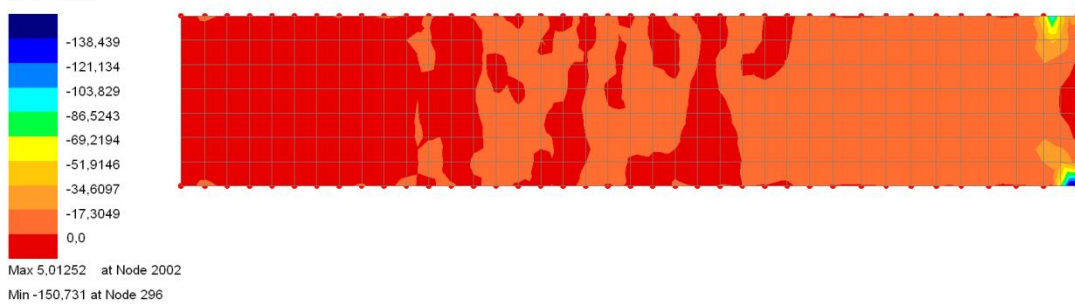
**Figura A.2.1.433 – Face lateral – Esforço Mx**

Loadcase: 9  
Title: Loadcase 9  
Results File: 0  
Entity: Stress  
Component: My



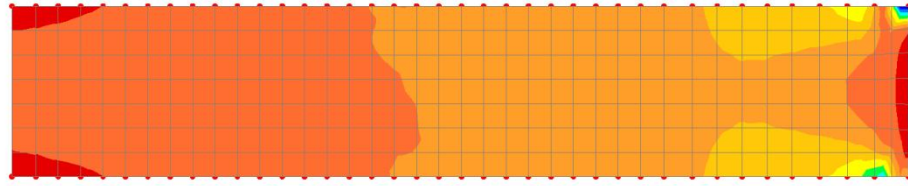
**Figura A.2.1.434 – Face lateral – Esforço My**

Loadcase: 9  
Title: Loadcase 9  
Results File: 0  
Entity: Stress  
Component: Nx



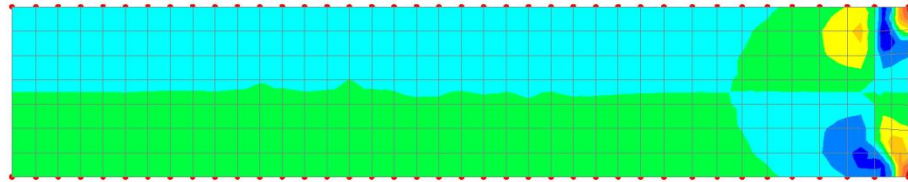
**Figura A.2.1.435 – Cobertura – Esforço Nx**

Loadcase: 9  
 Title: Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -140,343  
 -122,8  
 -105,257  
 -87,7141  
 -70,1713  
 -52,6285  
 -35,0857  
 -17,5428  
 0,0  
 Max 15,8566 at Node 2051  
 Min -142,029 at Node 294



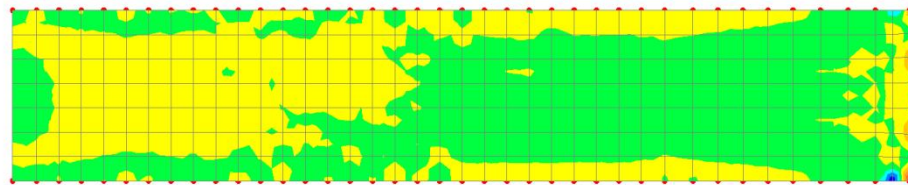
**Figura A.2.1.436 – Cobertura – Esforço Ny**

Loadcase: 9  
 Title: Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -28,6096  
 -19,0731  
 -9,53654  
 0,0  
 9,53654  
 19,0731  
 28,6096  
 38,1481  
 47,6827  
 Max 54,7145 at Node 296  
 Min -31,1143 at Node 4538



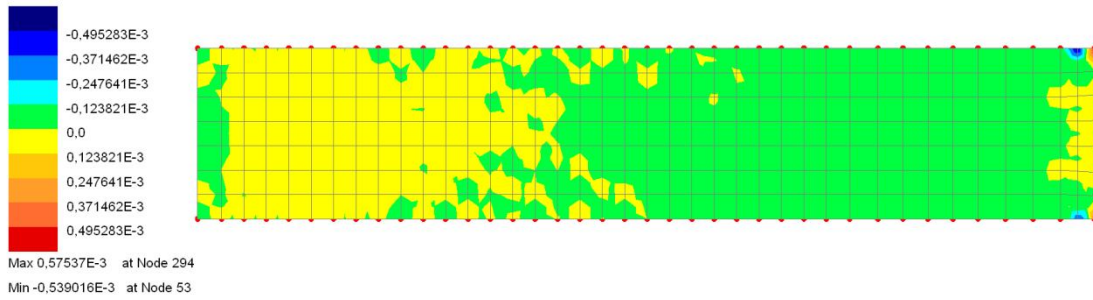
**Figura A.2.1.437 – Cobertura – Esforço Nxy**

Loadcase: 9  
 Title: Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -0,607874E-3  
 -0,455905E-3  
 -0,303937E-3  
 -0,151968E-3  
 0,0  
 0,151968E-3  
 0,303937E-3  
 0,455905E-3  
 0,607874E-3  
 Max 0,738236E-3 at Node 296  
 Min -0,62948E-3 at Node 1925



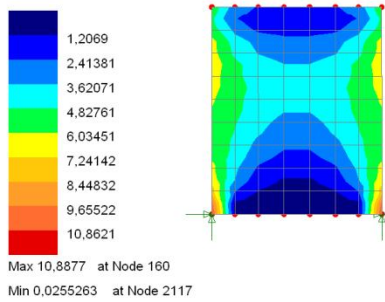
**Figura A.2.1.438 – Cobertura – Esforço Mx**

Loadcase: 9  
 Title: Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Component: My

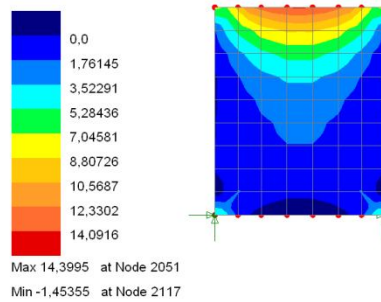


**Figura A.2.1.439 – Cobertura – Esforço My**

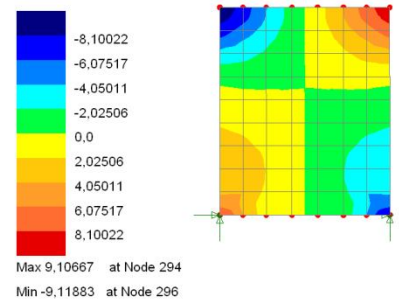
Loadcase: 9  
 Title: Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Component: Nx



Loadcase: 9  
 Title: Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Component: Ny

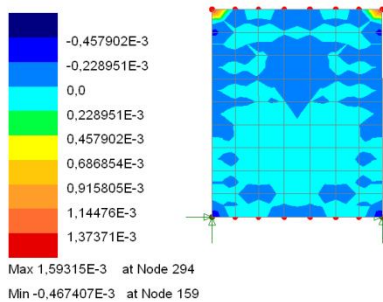


Loadcase: 9  
 Title: Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Component: Nxy

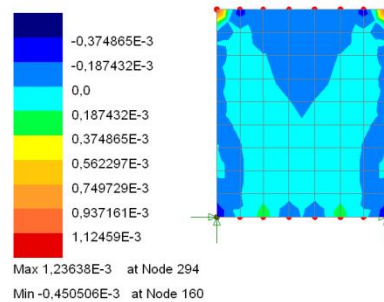


**Figura A.2.1.440 – Face frontal – Esforço Nx, Ny e Nxy**

Loadcase: 9  
 Title: Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Component: Mx



Loadcase: 9  
 Title: Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Component: My



**Figura A.2.1.441 – Face frontal – Esforço Mx e My**

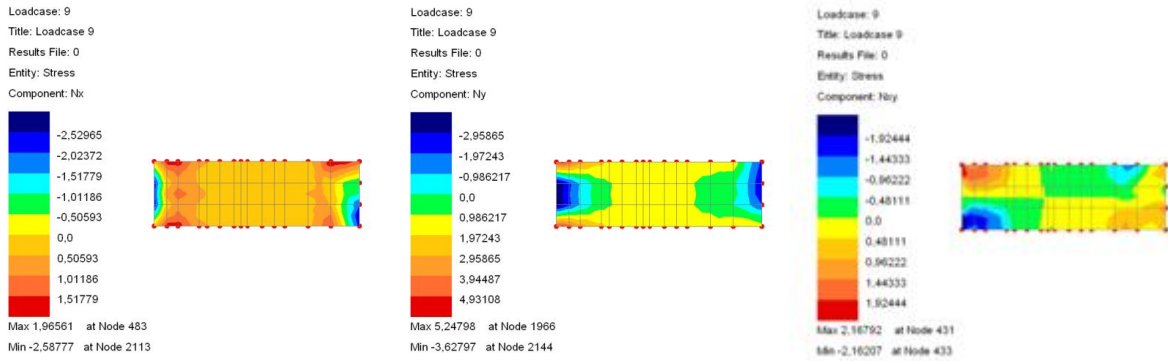


Figura A.2.1.442 – Abertura para os garfos - FP – Esforço Nx, Ny e Nxy

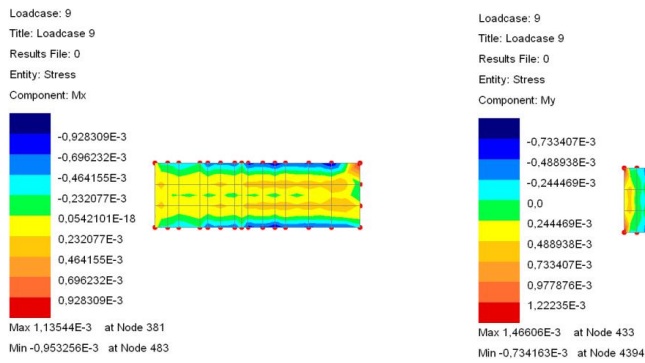


Figura A.2.1.443 – Abertura para os garfos - FP – Esforço Mx e My

Scale=1:68,6304  
Zoom: 100,0  
Eye: (-0,57735; -0,57735; 0,57735)  
Linear/Dynamic Analysis  
Loadcase: 9  
Loadcase 9  
Results File: 0  
Entity: Stress  
Diagram Component: Fx  
MAX 29,71 at Elt/GP 46/1  
MIN -45,83 at Elt/GP 44/1  
DIAGRAM Scale: 1/0,1000  
Peak/Value Component =Fx  
Peak Range(%): 20,00  
Max 28,13 at Node 379  
Min -40,95 at Node 53

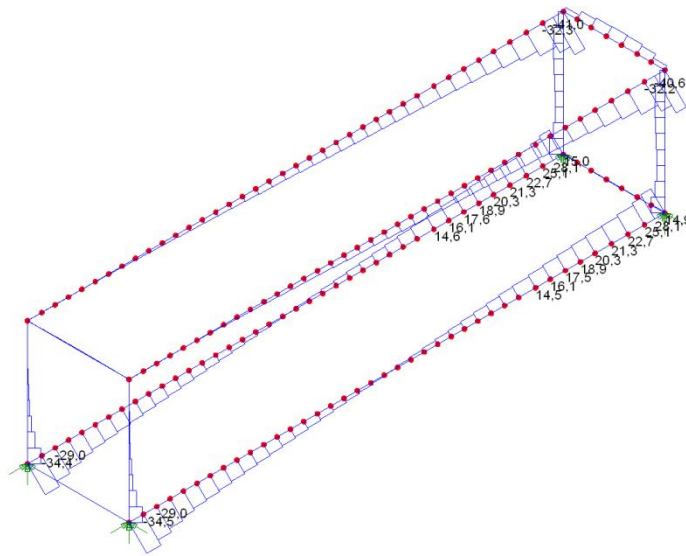
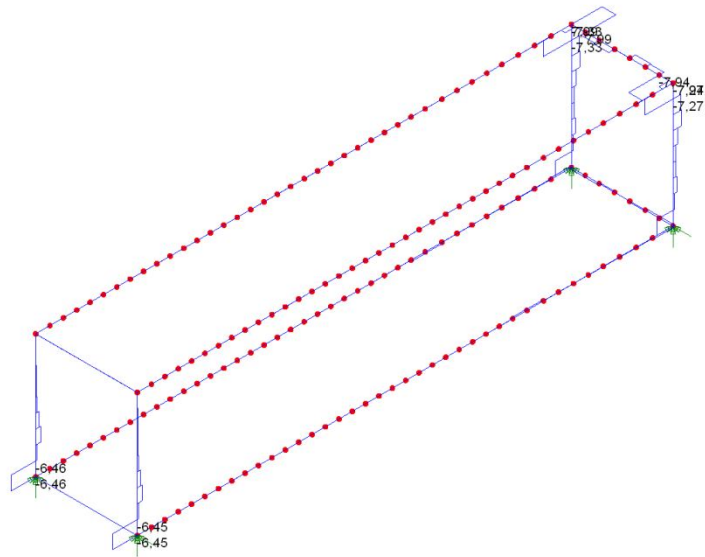


Figura A.2.1.444 – Vista geral – Diagrama Fx

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress

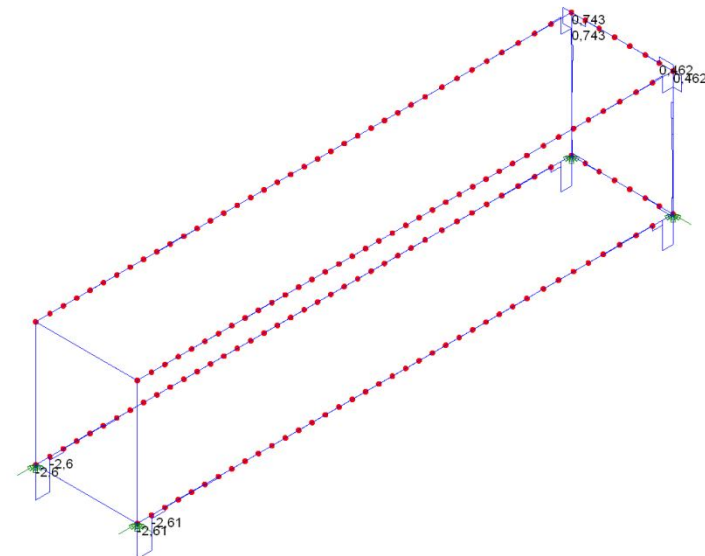
Diagram Component: Fy  
 MAX 7.992 at Elt/GP 764/1  
 MIN -7.943 at Elt/GP 755/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 15,00  
 Max 7.992 at Elt/GP 764/1  
 Min -7.943 at Elt/GP 755/1



**Figura A.2.1.445 – Vista geral – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress

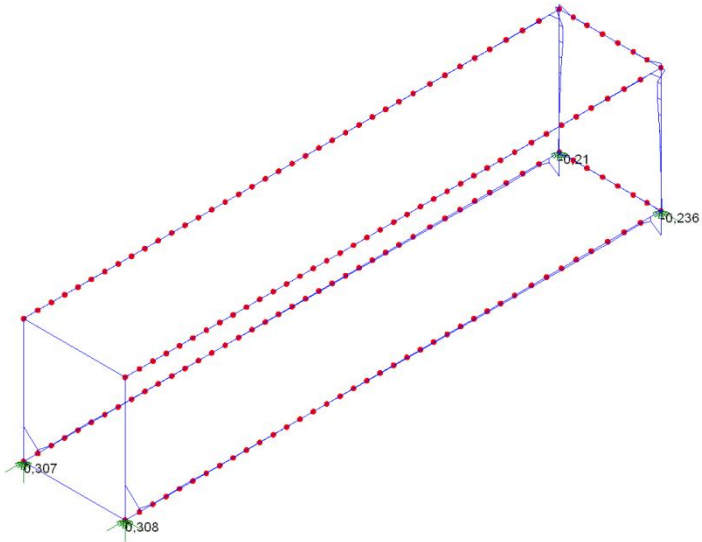
Diagram Component: Fz  
 MAX 0.7434 at Elt/GP 75/1  
 MIN -2.607 at Elt/GP 20/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 0.7434 at Elt/GP 75/1  
 Min -2.607 at Elt/GP 20/1



**Figura A.2.1.446 – Vista geral – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress

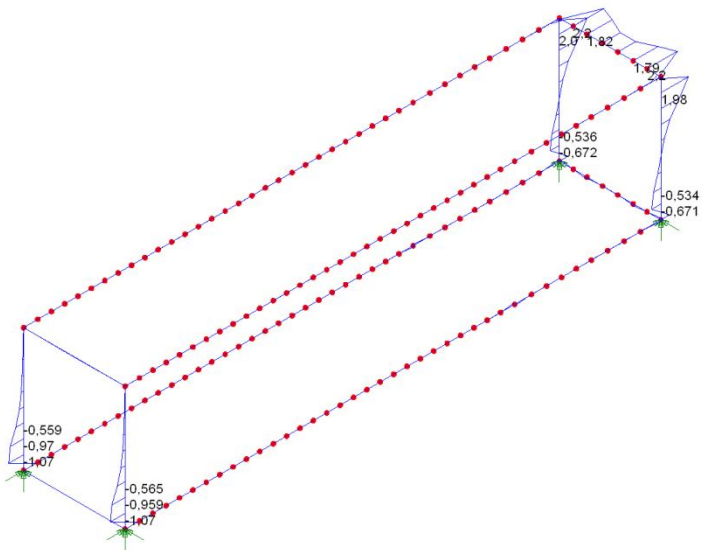
Diagram Component: My  
 MAX 0,9243 at Elt/GP 20/1  
 MIN -0,6320 at Elt/GP 46/11  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =My  
 Peak Range(%): 20,00  
 Max 0,3079 at Node 12  
 Min -0,2365 at Node 160



**Figura A.2.1.447 – Vista geral – Diagrama My**

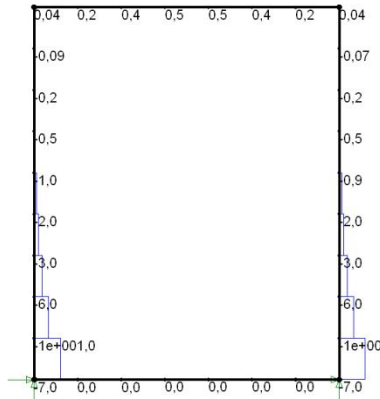
Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress

Diagram Component: Mz  
 MAX 2,216 at Elt/GP 764/11  
 MIN -1,071 at Elt/GP 1/11  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 20,00  
 Max 2,201 at Node 2018  
 Min -1,071 at Node 4

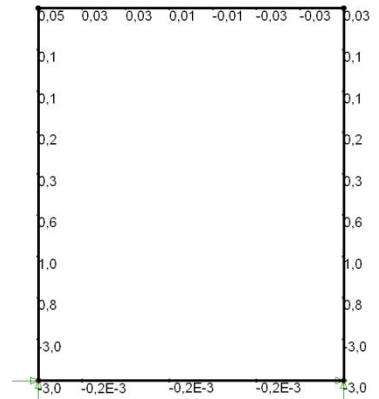


**Figura A.2.1.448 – Vista geral – Diagrama Mz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.5634 at Elt/GP 29/1  
 MIN -14.11 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 10.00  
 Max 0.5336 at Node 209  
 Min -10.97 at Node 4

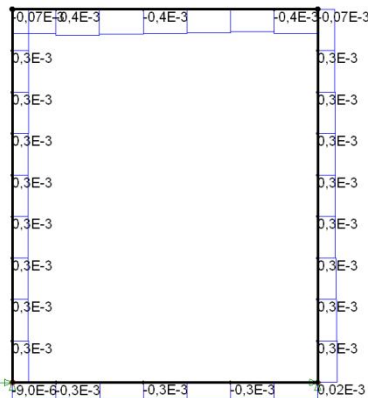


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 1.335 at Elt/GP 3/1  
 MIN -6.459 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 10.00  
 Max 1.087 at Node 8  
 Min -3.229 at Node 1



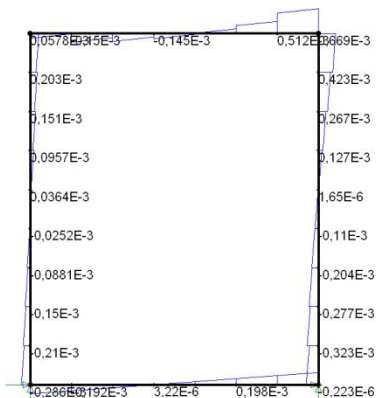
**Figura A.2.1.449 – Face da porta – Diagrama Fx e Fy**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.3457E-03 at Elt/GP 1/1  
 MIN -0.4615E-03 at Elt/GP 31/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fz  
 Peak Range(%): 10.00  
 Max 0.3393E-03 at Node 4  
 Min -0.4520E-03 at Node 213

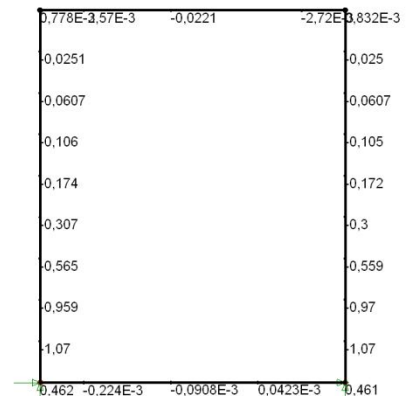


**Figura A.2.1.450 – Face da porta – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.7871E-03 at Elt/GP 26/1  
 MIN -0.3935E-03 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =My  
 Peak Range(%): 10.00  
 Max 0.6694E-03 at Node 2  
 Min -0.3232E-03 at Node 4

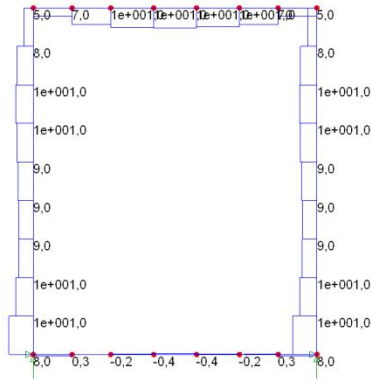


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.9243 at Elt/GP 41/1  
 MIN -1.071 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 10.00  
 Max 0.4620 at Node 12  
 Min -1.071 at Node 4

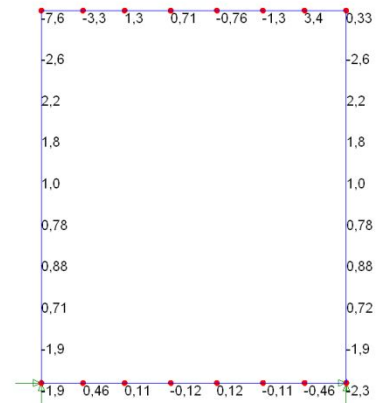


**Figura A.2.1.451 – Face da porta – Diagrama My e Mz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 14.46 at Elt/GP 120/1  
 MIN -0.4966 at Elt/GP 1350/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 101.0  
 Max 12.36 at Node 441  
 Min -0.4198 at Node 4200

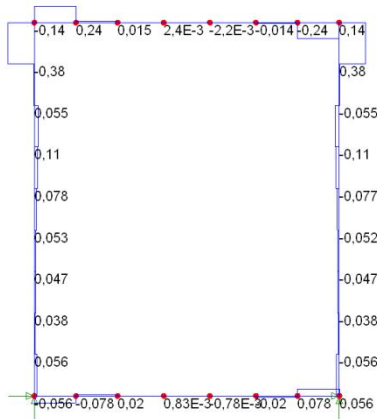


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 7.992 at Elt/GP 764/1  
 MIN -7.943 at Elt/GP 755/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 101.0  
 Max 3.407 at Node 2018  
 Min -7.608 at Node 296



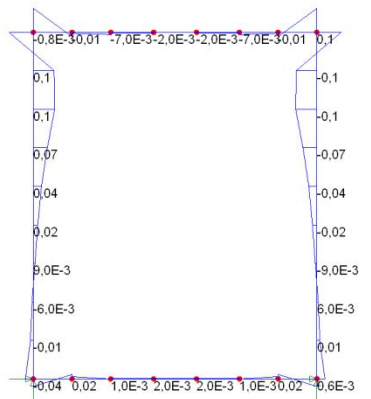
**Figura A.2.1.452 – Face frontal – Diagrama Fx e Fy**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.7434 at Elt/GP 75/1  
 MIN -0.7470 at Elt/GP 136/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fz  
 Peak Range(%): 101.0  
 Max 0.3768 at Node 320  
 Min -0.3786 at Node 1913

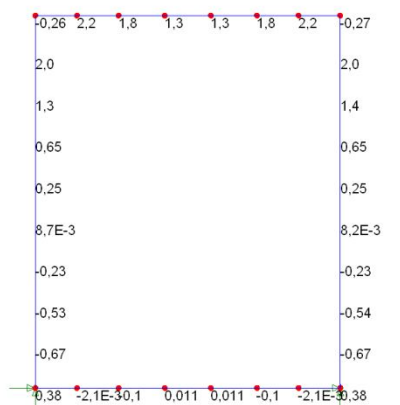


**Figura A.2.1.453 – Face frontal – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.1230 at Elt/GP 75/11  
 MIN -0.1232 at Elt/GP 136/11  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =My  
 Peak Range(%): 101.0  
 Max 0.1222 at Node 294  
 Min -0.1083 at Node 318

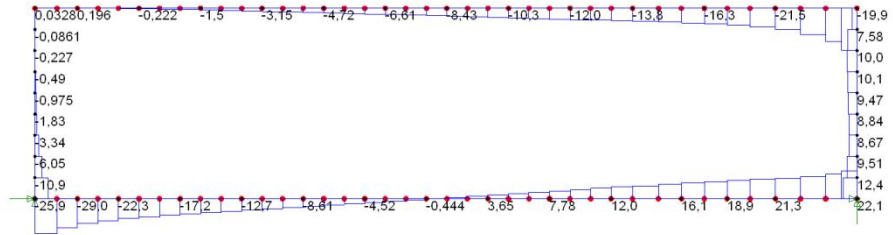


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 2.216 at Elt/GP 764/11  
 MIN -0.6726 at Elt/GP 65/11  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 101.0  
 Max 2.201 at Node 2018  
 Min -0.6725 at Node 287



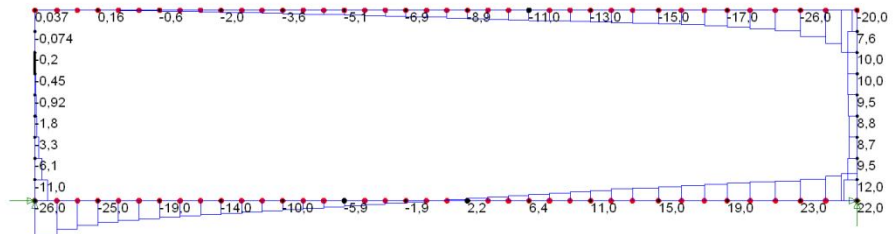
**Figura A.2.1.454 – Face frontal – Diagrama My e Mz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 29.64 at Elk/GP 731/1  
 MIN -45.23 at Elk/GP 729/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 28.07 at Node 1930  
 Min -40.60 at Node 1925



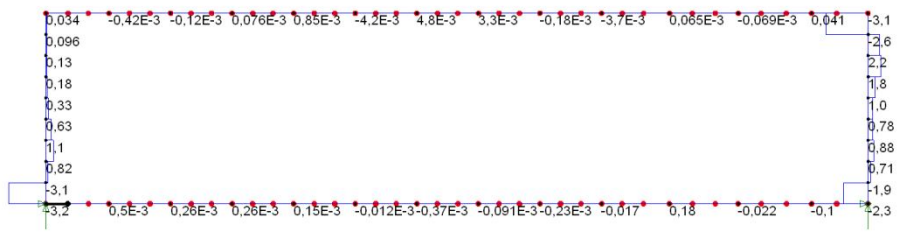
**Figura A.2.1.455 – Face lateral 1 – Diagrama Fx**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 29.71 at Elk/GP 46/1  
 MIN -45.83 at Elk/GP 44/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 28.13 at Node 379  
 Min -40.95 at Node 53



**Figura A.2.1.456 – Face lateral 2 – Diagrama Fx**

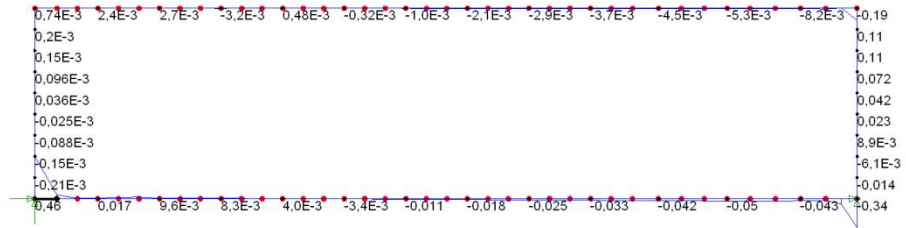
Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 2.272 at Elk/GP 128/1  
 MIN -7.273 at Elk/GP 136/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 10,00  
 Max 2.157 at Node 1911  
 Min -3.227 at Node 12



**Figura A.2.1.457 – Face lateral 1 – Diagrama Fy**

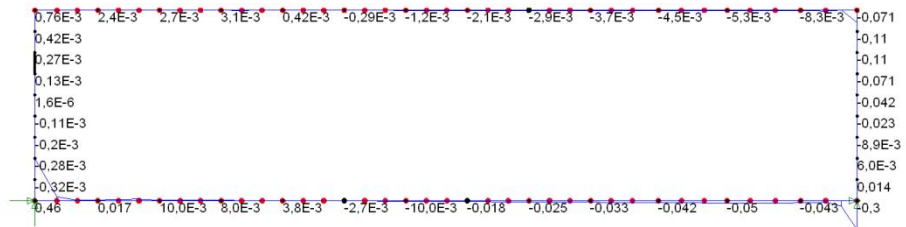


Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.9243 at Elt/GP 20/1  
 MIN -0.6309 at Elt/GP 731/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0.4620 at Node 12  
 Min -0.3354 at Node 160



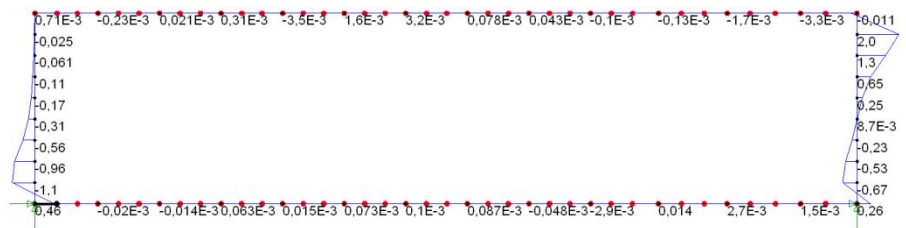
**Figura A.2.1.461 – Face lateral 1 – Diagrama My**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.9223 at Elt/GP 7/1  
 MIN -0.6320 at Elt/GP 46/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0.4609 at Node 1  
 Min -0.2961 at Node 159



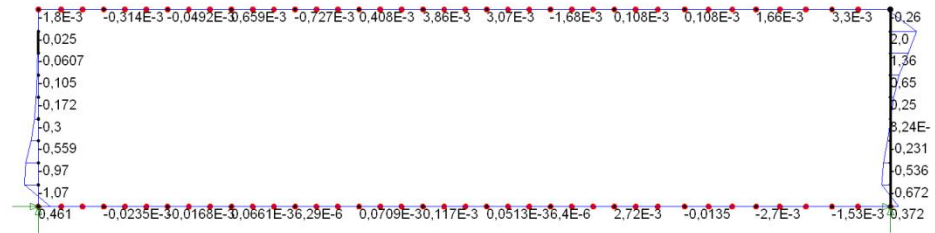
**Figura A.2.1.462 – Face lateral 2 – Diagrama My**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 1.980 at Elt/GP 136/1  
 MIN -1.068 at Elt/GP 41/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 10,00  
 Max 1.980 at Node 1913  
 Min -1.068 at Node 104



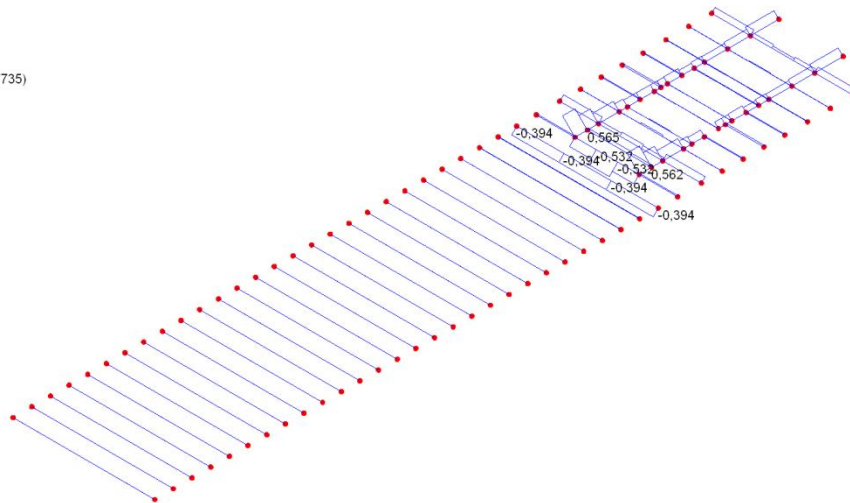
**Figura A.2.1.463 – Face lateral 1 – Diagrama Mz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 1.996 at Elt/GP 75/1  
 MIN -1.071 at Elt/GP 1/11  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 10.00  
 Max 1.995 at Node 320  
 Min -1.071 at Node 4



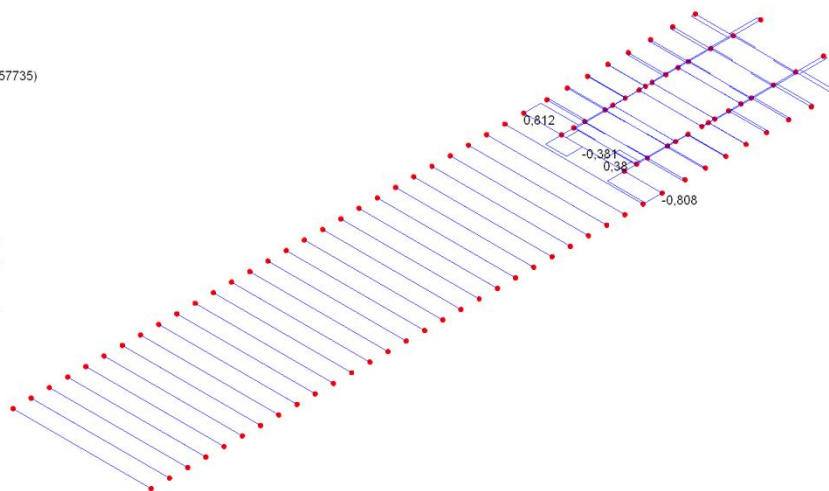
**Figura A.2.1.464 – Face lateral 2 – Diagrama Mz**

Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.9571 at Elt/GP 760/1  
 MIN -0.6504 at Elt/GP 817/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 15.00  
 Max 0.5647 at Node 394  
 Min -0.5323 at Node 2144

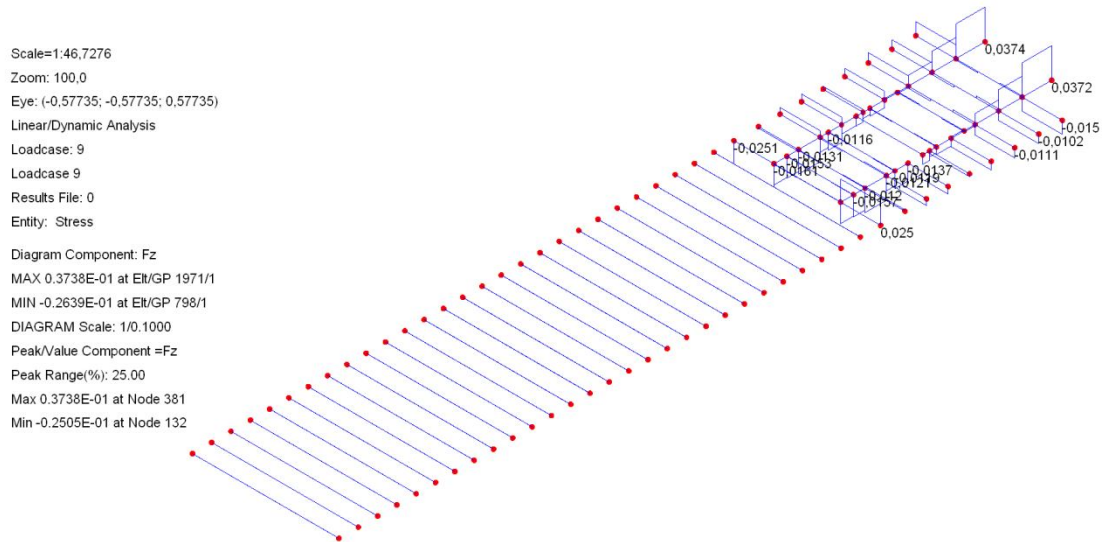


**Figura A.2.1.465 – Estrutura da base – Diagrama Fx**

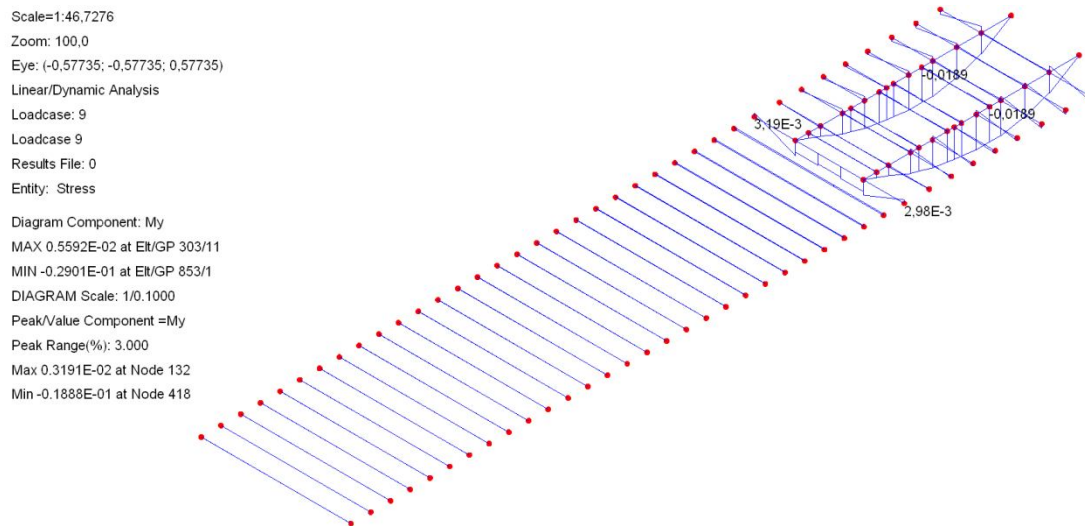
Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.8115 at Elt/GP 305/1  
 MIN -0.8083 at Elt/GP 306/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 30.00  
 Max 0.8115 at Node 132  
 Min -0.8083 at Node 133



**Figura A.2.1.466 – Estrutura da base – Diagrama Fy**

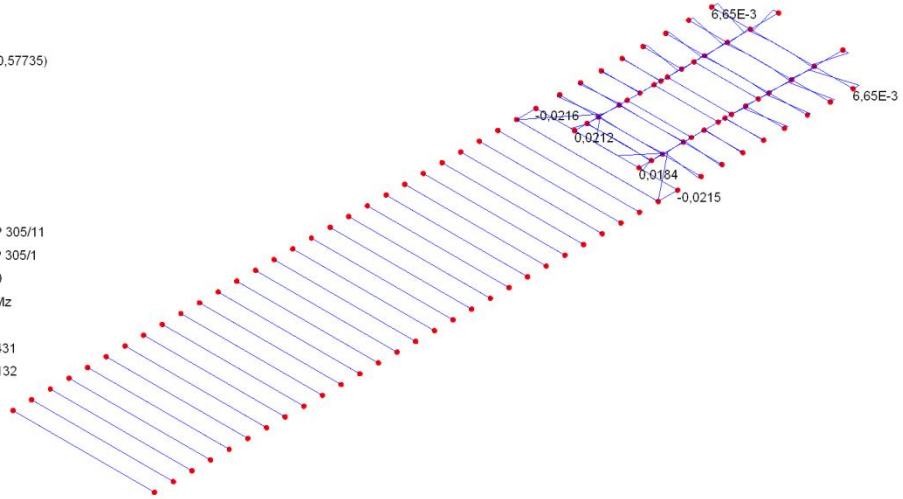


**Figura A.2.1.467 – Estrutura da base – Diagrama Fz**

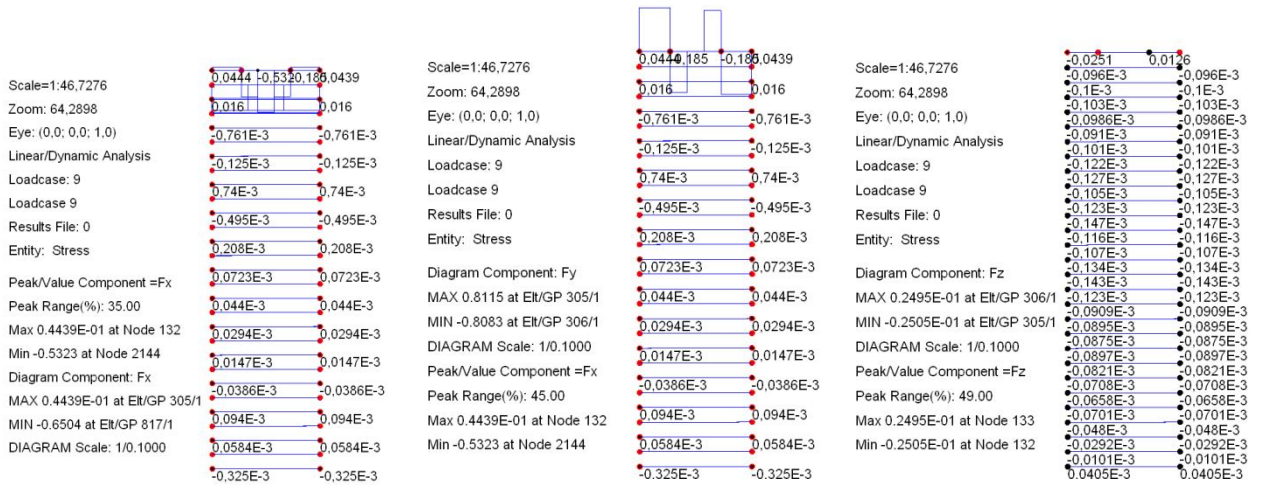


**Figura A.2.1.468 – Estrutura da base – Diagrama My**

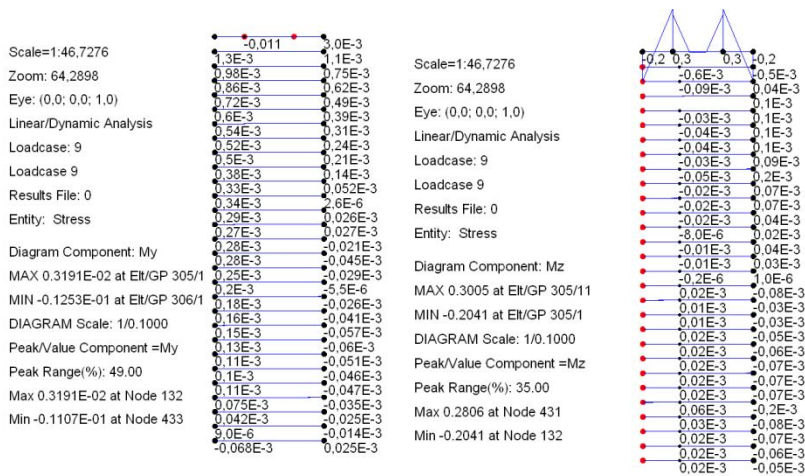
Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0,3185E-01 at Elt/GP 305/11  
 MIN -0,2164E-01 at Elt/GP 305/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35,00  
 Max 0,2124E-01 at Node 431  
 Min -0,2164E-01 at Node 132



**Figura A.2.1.469 – Estrutura da base – Diagrama Mz**

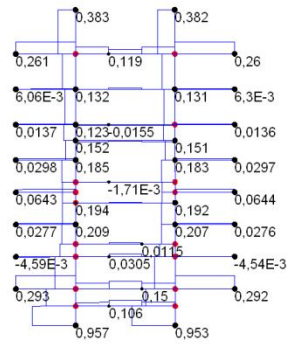


**Figura A.2.1.470 – Perfis transversais – Diagrama Fx, Fy e Fz**



**Figura A.2.1.471 – Perfis transversais – Diagrama My e Mz**

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.9571 at Elt/GP 760/1  
 MIN -0.2421E-01 at Elt/GP 885/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 35.00  
 Max 0.9571 at Node 431  
 Min -0.2006E-01 at Node 2947



Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.2209 at Elt/GP 757/1  
 MIN -0.2218 at Elt/GP 760/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 35.00  
 Max 0.2209 at Node 433  
 Min -0.2218 at Node 431

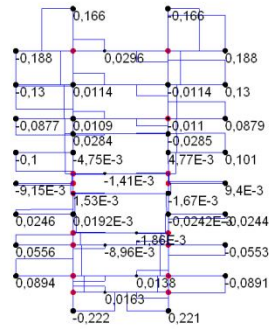


Figura A.2.1.472 – Abertura para os garfos - Perfis transversais – Diagrama Fx e Fy

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.3738E-01 at Elt/GP 1971/1  
 MIN -0.2639E-01 at Elt/GP 798/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 35.00  
 Max 0.3738E-01 at Node 381  
 Min -0.2297E-01 at Node 433

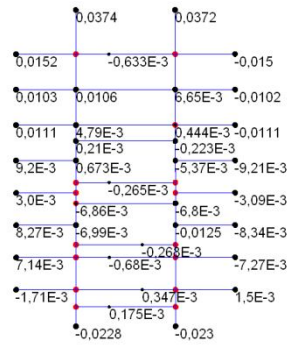
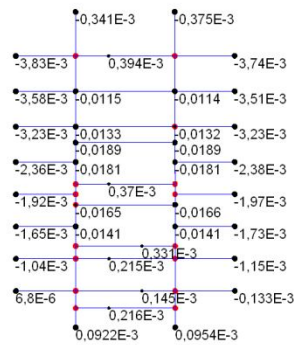


Figura A.2.1.473 – Abertura para os garfos - Perfis transversais – Diagrama Fz

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.5592E-02 at Elt/GP 303/11  
 MIN -0.2901E-01 at Elt/GP 853/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 35.00  
 Max 0.5047E-03 at Node 2947  
 Min -0.1888E-01 at Node 418



Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 9  
 Loadcase 9  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.5910E-01 at Elt/GP 303/1  
 MIN -0.5766E-01 at Elt/GP 304/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.5910E-01 at Node 156  
 Min -0.5014E-01 at Node 392

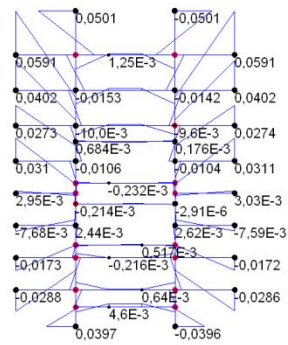


Figura A.2.1.474 – Abertura para os garfos - Perfis transversais – Diagrama My e Mz

## Caso de carga 9

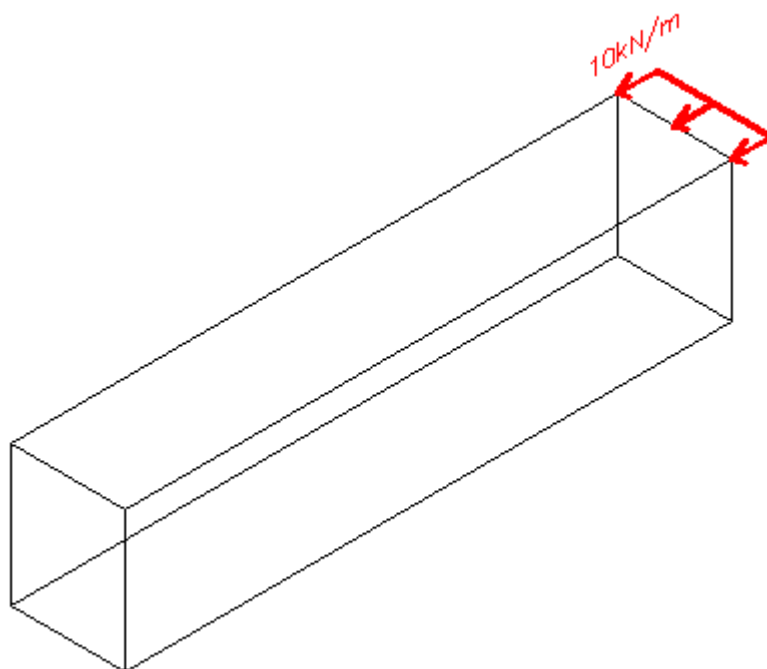


Figura A.2.1.475 – Caso de carga 9

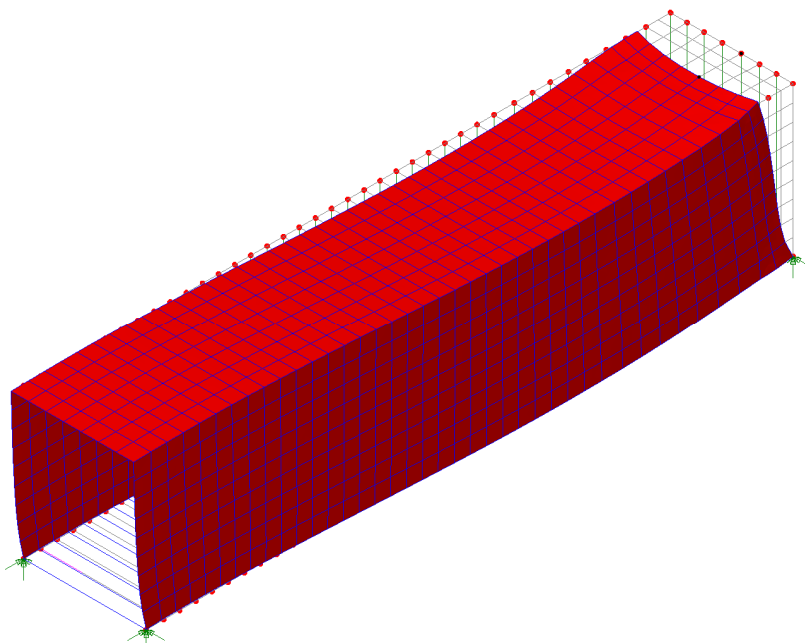
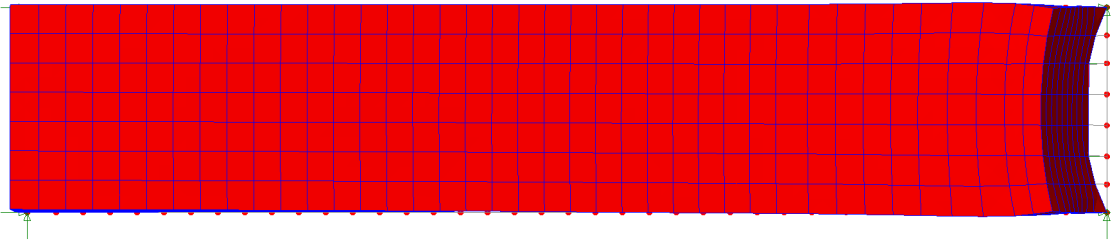
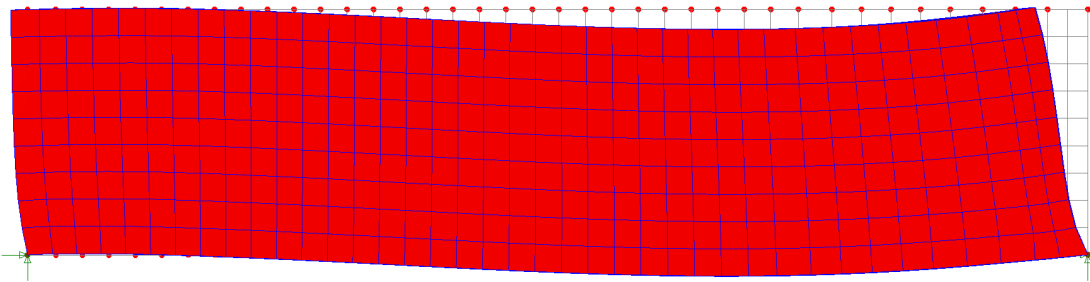


Figura A.2.1.476 – Vista geral da deformada

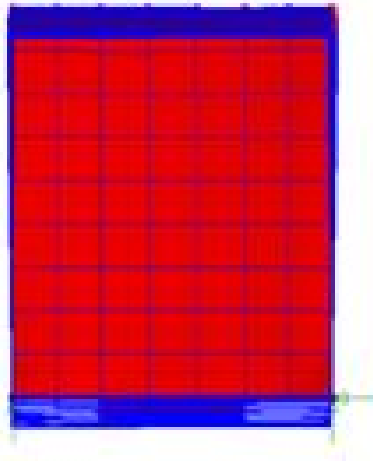
Deslocamento máximo: 0,13 mm.



**Figura A.2.1.477 – Vista da cobertura deformada**



**Figura A.2.1.478 – Vista da face lateral deformada**



**Figura A.2.1.479 – Vista da face da porta deformada**

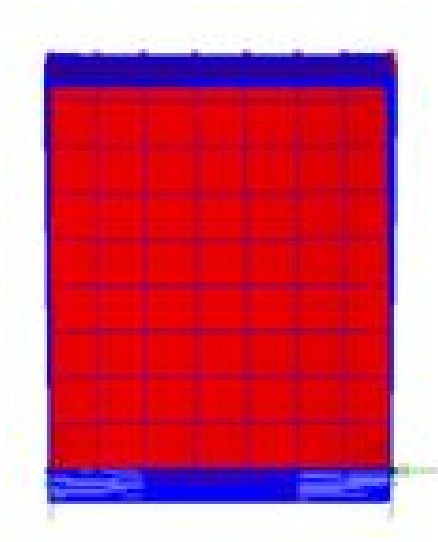


Figura A.2.1.480 – Vista da face frontal deformada

Loadcase: 10  
 Title: Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Component: Nx

Blue	-9,42566
Light Blue	-8,07914
Cyan	-6,73261
Green	-5,38609
Yellow	-4,03957
Orange	-2,69305
Red-Orange	-1,34652
Red	0,0
Dark Red	1,34652

Max 2,0436 at Node 159  
 Min -10,0751 at Node 2110

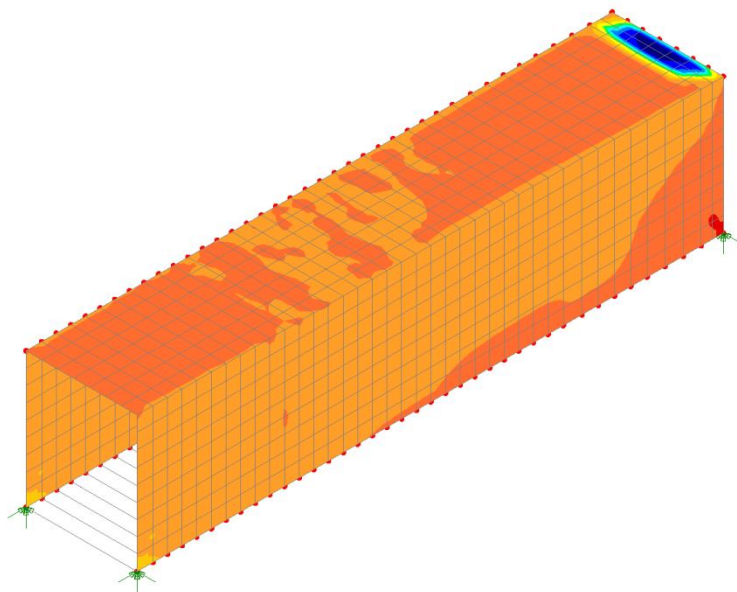
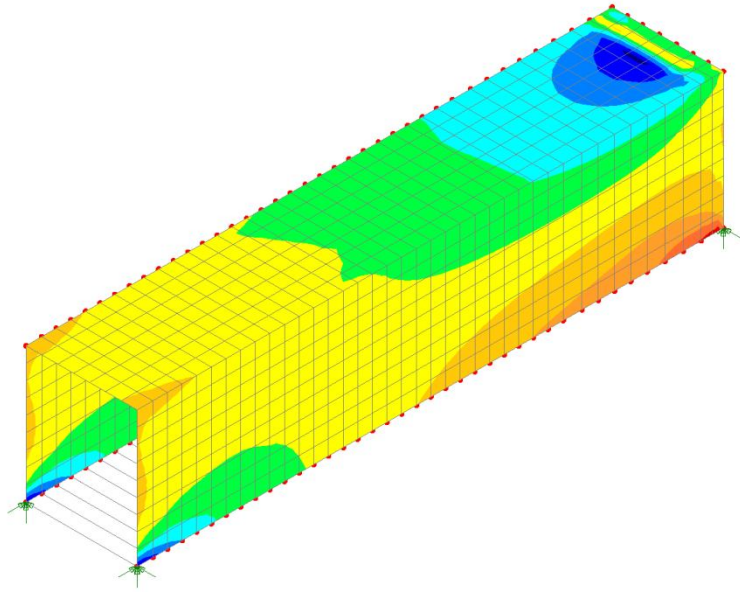


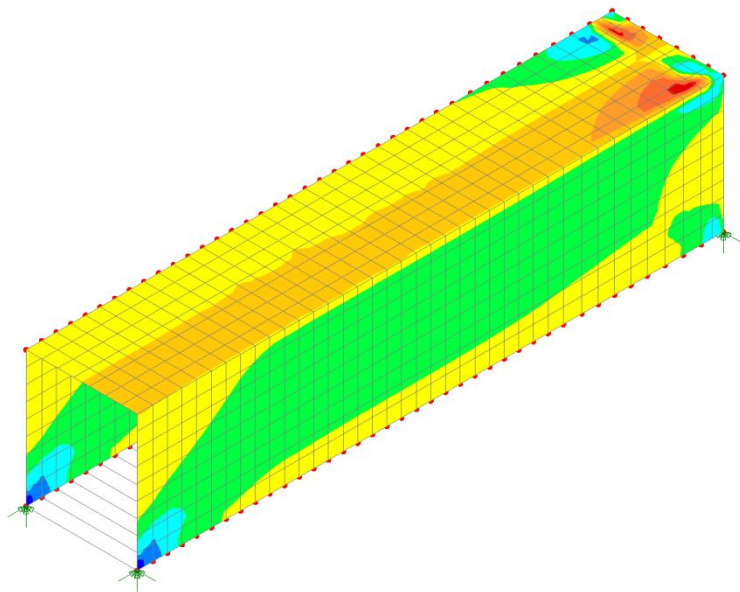
Figura A.2.1.481 – Vista geral – Esforço Nx

Loadcase: 10  
 Title: Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -8,47959  
 -6,78367  
 -5,08775  
 -3,39184  
 -1,69592  
 0,0  
 1,69592  
 3,39184  
 5,08775  
 Max 6,51798 at Node 380  
 Min -8,74529 at Node 2867



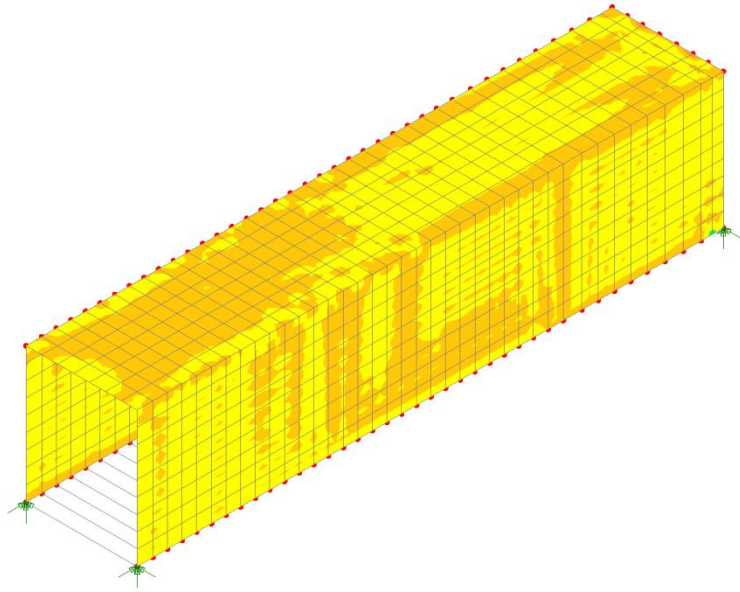
**Figura A.2.1.482 – Vista geral – Esforço Ny**

Loadcase: 10  
 Title: Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -4,0629  
 -3,25032  
 -2,43774  
 -1,62516  
 -0,812579  
 0,0  
 0,812579  
 1,62516  
 2,43774  
 Max 3,07083 at Node 2864  
 Min -4,24239 at Node 12



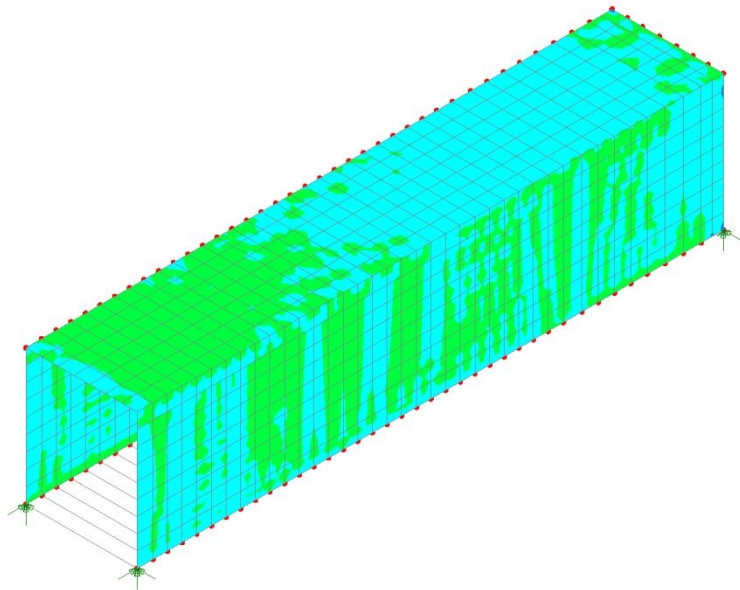
**Figura A.2.1.483 – Vista geral – Esforço Nxy**

Loadcase: 10  
 Title: Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -0,120455E-3  
 -0,0963642E-3  
 -0,0722732E-3  
 -0,0481821E-3  
 -0,0240911E-3  
 0,0  
 0,0240911E-3  
 0,0481821E-3  
 0,0722732E-3  
 Max 0,0947891E-3 at Node 2201  
 Min -0,12203E-3 at Node 2117



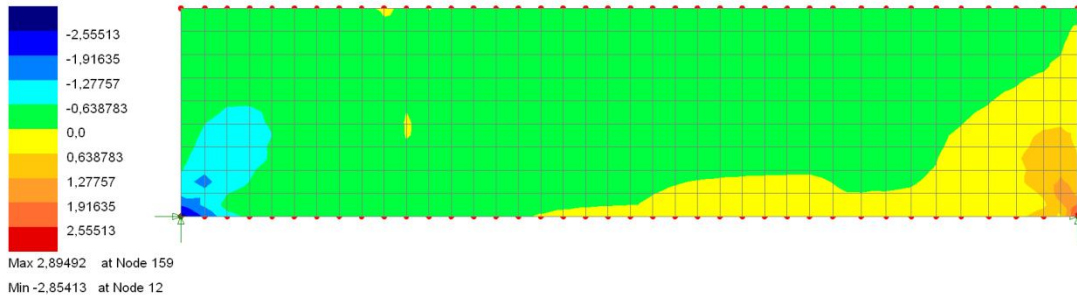
**Figura A.2.1.484 – Vista geral – Esforço Mx**

Loadcase: 10  
 Title: Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Component: My  
 -0,0736034E-3  
 -0,049069E-3  
 -0,0245345E-3  
 0,0  
 0,0245345E-3  
 0,049069E-3  
 0,0736034E-3  
 0,0981379E-3  
 0,122672E-3  
 Max 0,136742E-3 at Node 433  
 Min -0,0840684E-3 at Node 159



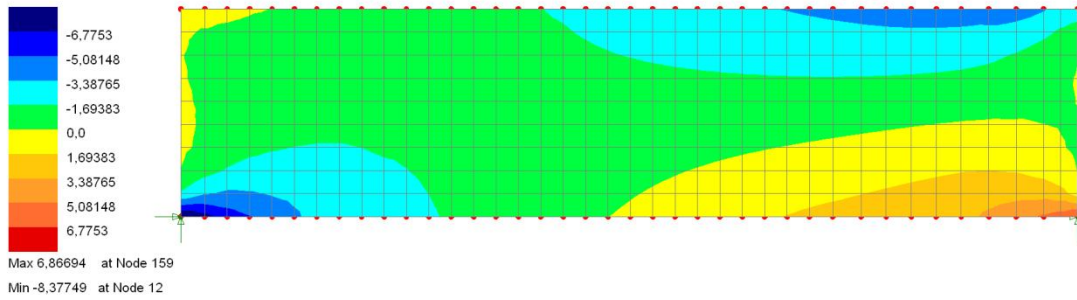
**Figura A.2.1.485 – Vista geral – Esforço My**

Loadcase: 10  
Title: Loadcase 10  
Results File: 0  
Entity: Stress  
Component: Nx



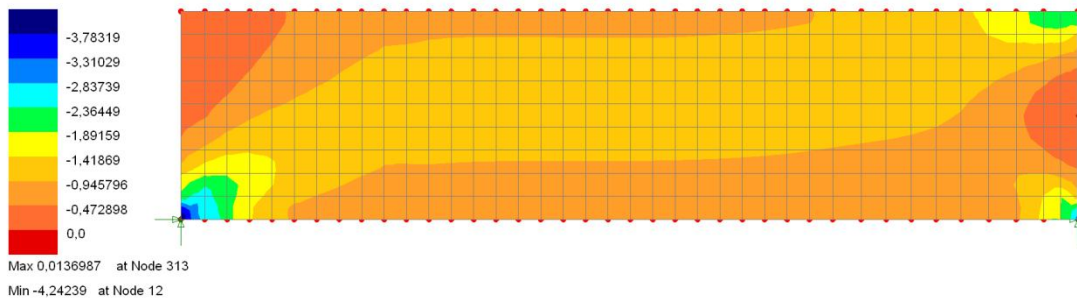
**Figura A.2.1.486 – Face lateral – Esforço Nx**

Loadcase: 10  
Title: Loadcase 10  
Results File: 0  
Entity: Stress  
Component: Ny



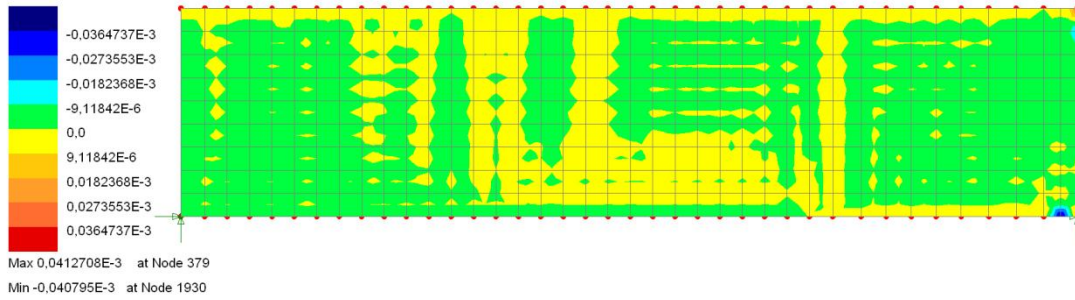
**Figura A.2.1.487 – Face lateral – Esforço Ny**

Loadcase: 10  
Title: Loadcase 10  
Results File: 0  
Entity: Stress  
Component: Nxy



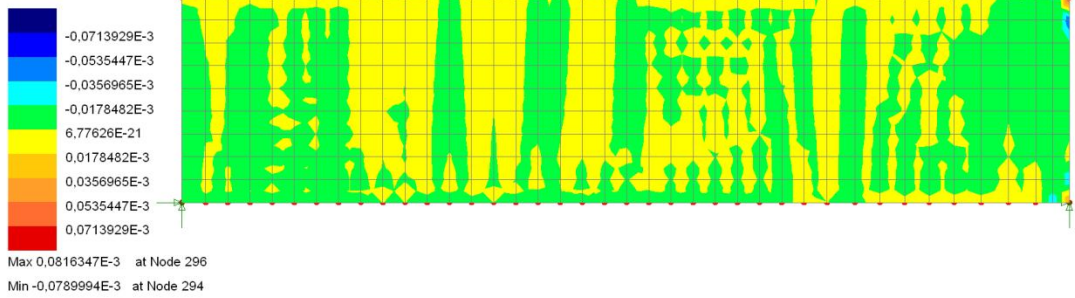
**Figura A.2.1.488 – Face lateral – Esforço Nxy**

Loadcase: 10  
Title: Loadcase 10  
Results File: 0  
Entity: Stress  
Component: Mx



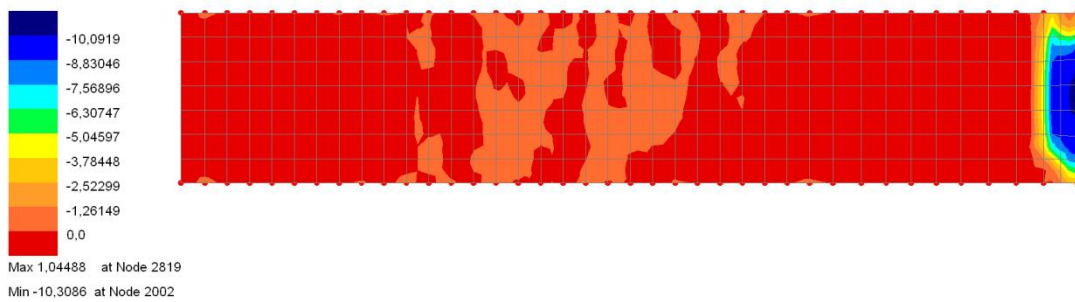
**Figura A.2.1.489 – Face lateral – Esforço Mx**

Loadcase: 10  
Title: Loadcase 10  
Results File: 0  
Entity: Stress  
Component: My



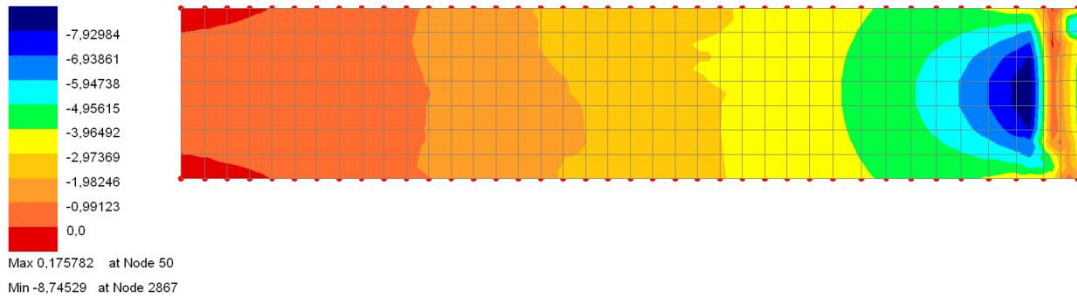
**Figura A.2.1.490 – Face lateral – Esforço My**

Loadcase: 10  
Title: Loadcase 10  
Results File: 0  
Entity: Stress  
Component: Nx



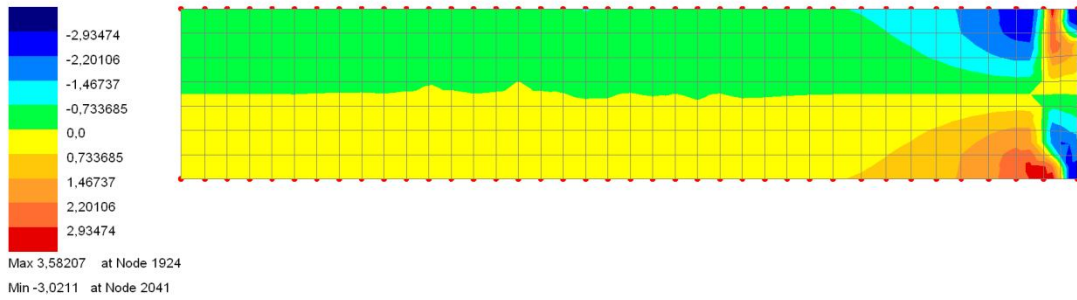
**Figura A.2.1.491 – Cobertura – Esforço Nx**

Loadcase: 10  
Title: Loadcase 10  
Results File: 0  
Entity: Stress  
Component: Ny



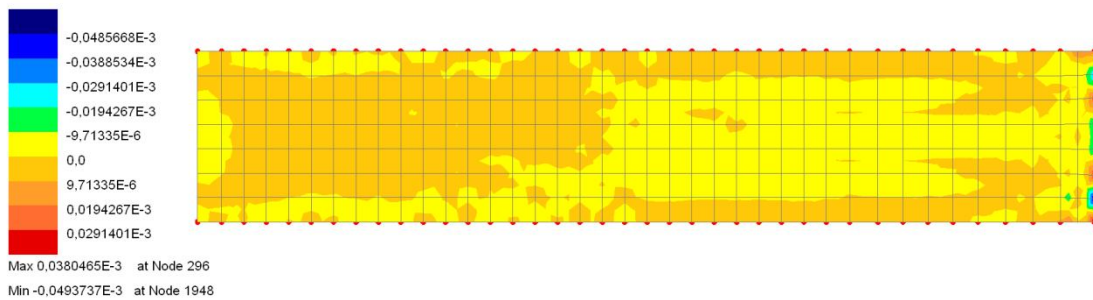
**Figura A.2.1.492 – Cobertura – Esforço Ny**

Loadcase: 10  
Title: Loadcase 10  
Results File: 0  
Entity: Stress  
Component: Nxy



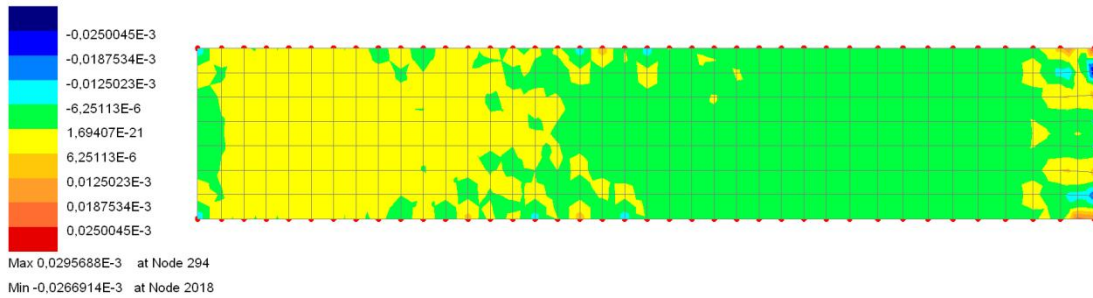
**Figura A.2.1.493 – Cobertura – Esforço Nxy**

Loadcase: 10  
Title: Loadcase 10  
Results File: 0  
Entity: Stress  
Component: Mx



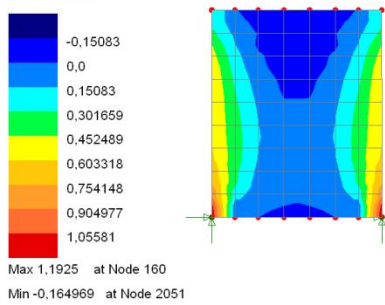
**Figura A.2.1.494 – Cobertura – Esforço Mx**

Loadcase: 10  
 Title: Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Component: My

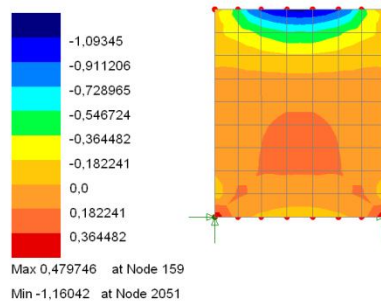


**Figura A.2.1.495 – Cobertura – Esforço My**

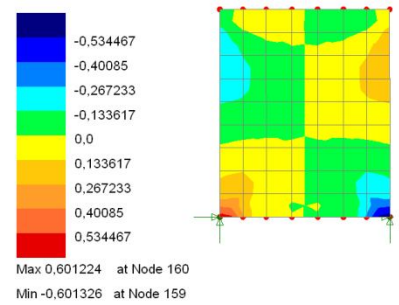
Loadcase: 10  
 Title: Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Component: Nx



Loadcase: 10  
 Title: Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Component: Ny

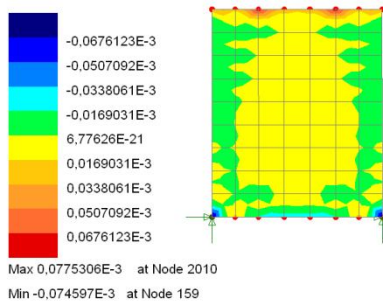


Loadcase: 10  
 Title: Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Component: Nxy

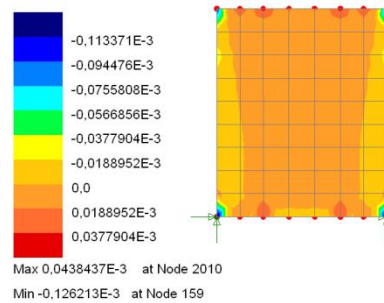


**Figura A.2.1.496 – Face frontal – Esforço Nx, Ny e Nz**

Loadcase: 10  
 Title: Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Component: Mx



Loadcase: 10  
 Title: Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Component: My



**Figura A.2.1.497 – Face frontal – Esforço Mx e My**

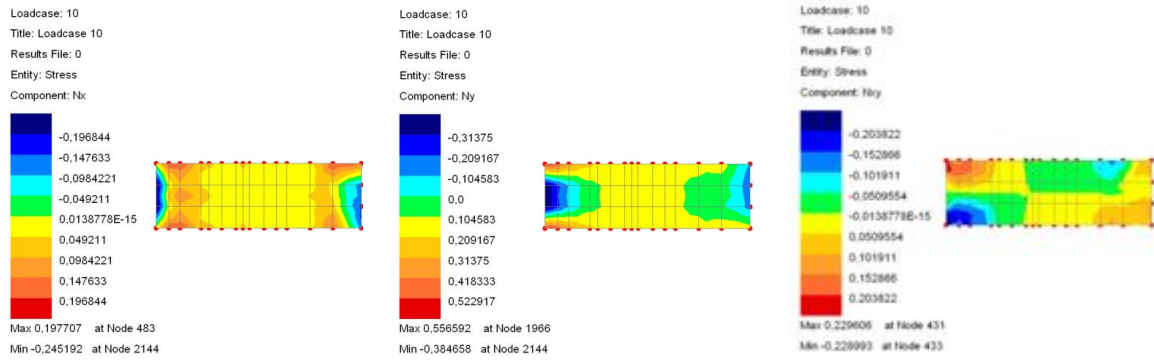


Figura A.2.1.498 – Abertura para os grafos – FP – Esforço Nx, Ny e Nz

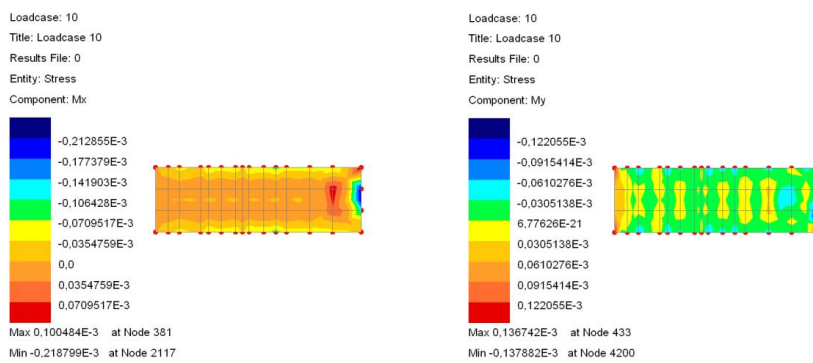


Figura A.2.1.499 – Abertura para os grafos – FP – Esforço Mx e My

Scale=1:68,6304  
Zoom: 100,0  
Eye: (-0,57735; -0,57735; 0,57735)  
Linear/Dynamic Analysis  
Loadcase: 10  
Loadcase 10  
Results File: 0  
Entity: Stress  
Diagram Component: Fx  
MAX 3,418 at Elt/GP 46/1  
MIN -4,237 at Elt/GP 20/1  
DIAGRAM Scale: 1/0,1000  
Peak/Value Component =Fx  
Peak Range(%): 20,00  
Max 3,214 at Node 379  
Min -3,877 at Node 37

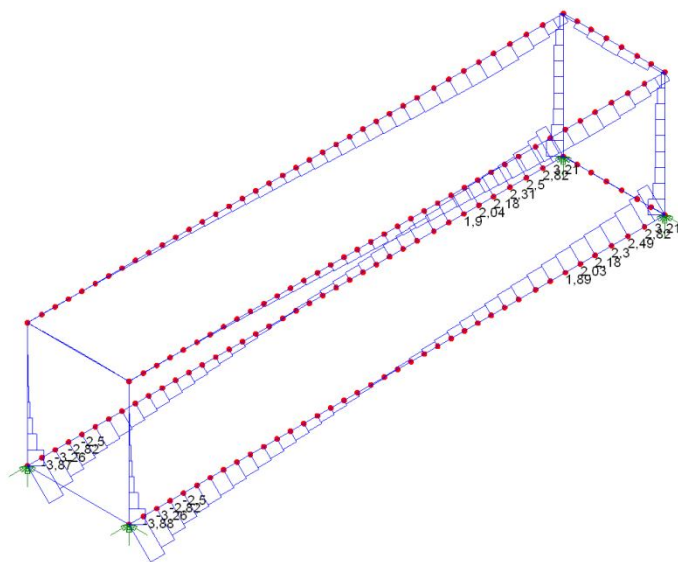
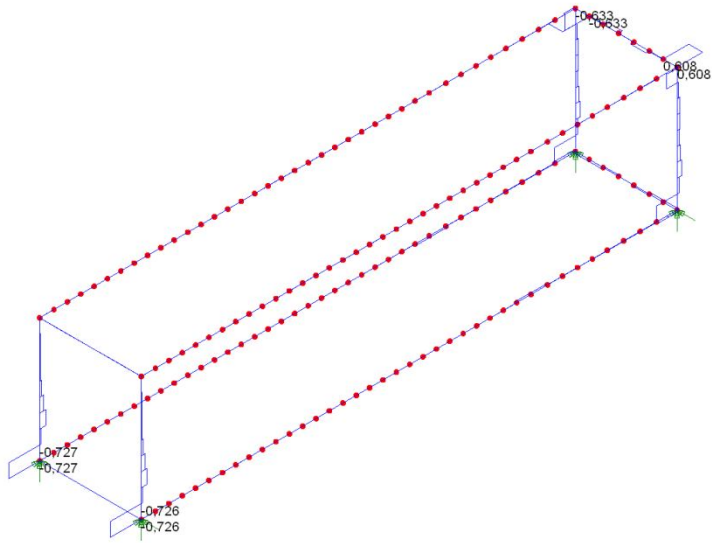


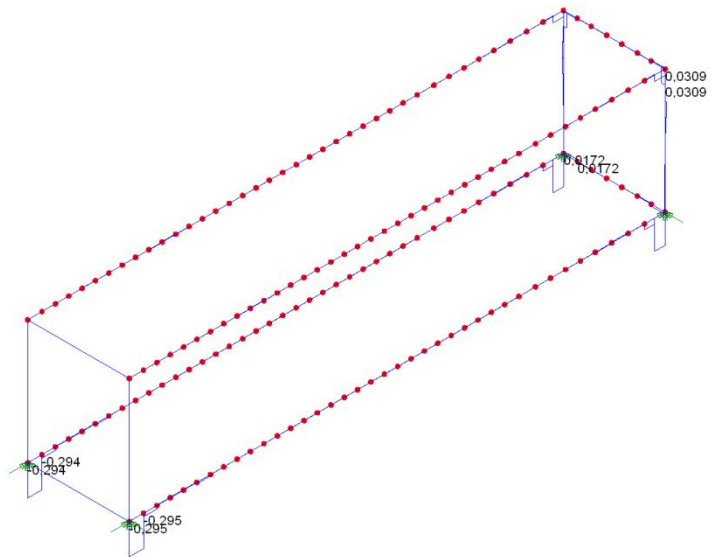
Figura A.2.1.500 – Vista geral – Diagrama Fx

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0,6084 at Elt/GP 755/1  
 MIN -0,7268 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fy  
 Peak Range(%): 15,00  
 Max 0,6084 at Elt/GP 755/1  
 Min -0,7268 at Elt/GP 1/1



**Figura A.2.1.501 – Vista geral – Diagrama Fy**

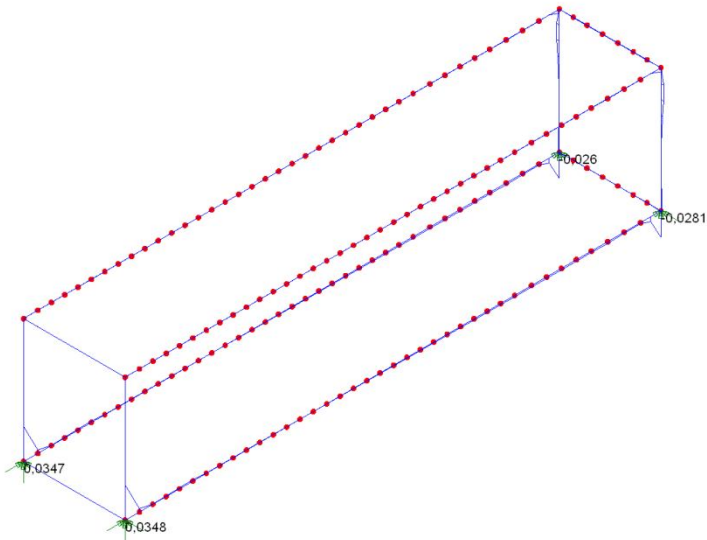
Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0,3086E-01 at Elt/GP 136/1  
 MIN -0,2945 at Elt/GP 20/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fz  
 Peak Range(%): 5,000  
 Max 0,3086E-01 at Elt/GP 136/1  
 Min -0,2945 at Elt/GP 20/1



**Figura A.2.1.502 – Vista geral – Diagrama Fz**

Scale=1,68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress

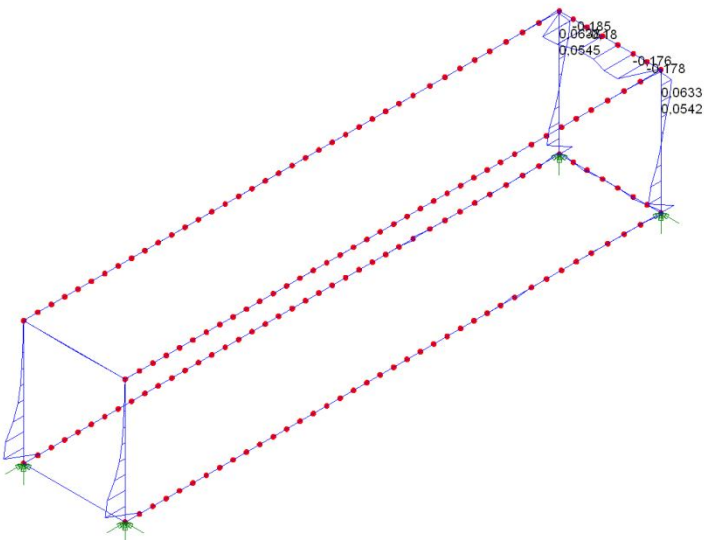
Diagram Component: My  
 MAX 0,1043 at EIt/GP 20/1  
 MIN -0,7786E-01 at EIt/GP 46/11  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =My  
 Peak Range(%): 20,00  
 Max 0,3476E-01 at Node 12  
 Min -0,2810E-01 at Node 160



**Figura A.2.1.503 – Vista geral – Diagrama My**

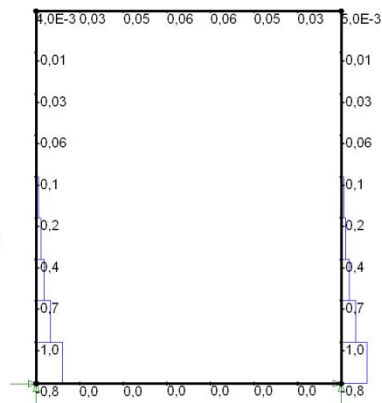
Scale=1,68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress

Diagram Component: Mz  
 MAX 0,1043 at EIt/GP 41/1  
 MIN -0,1851 at EIt/GP 762/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Mz  
 Peak Range(%): 10,00  
 Max 0,6384E-01 at Node 320  
 Min -0,1848 at Node 2018

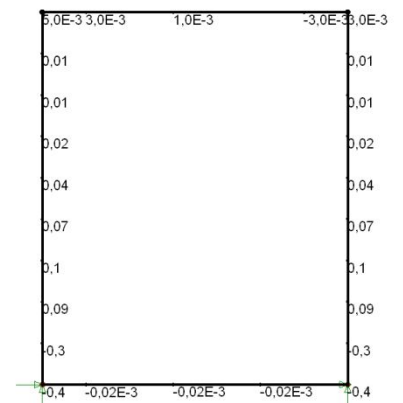


**Figura A.2.1.504 – Vista geral – Diagrama Mz**

Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.6647E-01 at Elt/GP 29/1  
 MIN -1.614 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 10.00  
 Max 0.6299E-01 at Node 209  
 Min -1.259 at Node 4

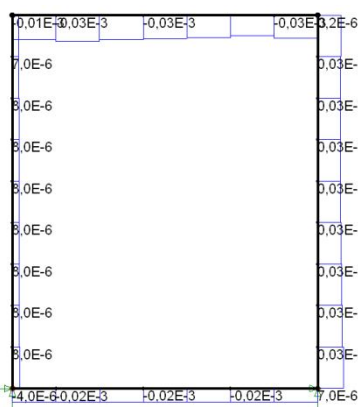


Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.1500 at Elt/GP 3/1  
 MIN -0.7268 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 10.00  
 Max 0.1221 at Node 8  
 Min -0.3634 at Node 1



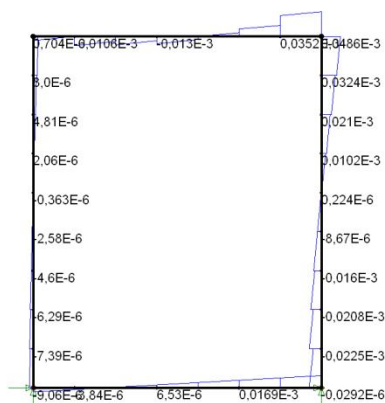
**Figura A.2.1.505 – Face da porta – Diagrama Fx e Fy**

Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.3068E-04 at Elt/GP 1/1  
 MIN -0.3082E-04 at Elt/GP 31/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fz  
 Peak Range(%): 10.00  
 Max 0.2996E-04 at Node 4  
 Min -0.2983E-04 at Node 213

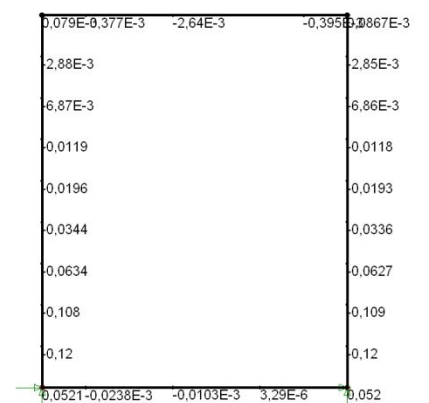


**Figura A.2.1.506 – Face da porta – Diagrama Fz**

Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.5487E-04 at Elt/GP 26/1  
 MIN -0.2731E-04 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =My  
 Peak Range(%): 10.00  
 Max 0.4864E-04 at Node 2  
 Min -0.2245E-04 at Node 4

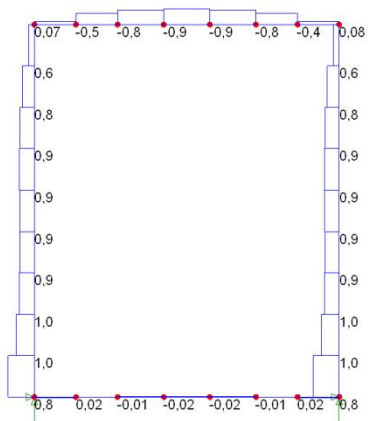


Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.1043 at Elt/GP 41/1  
 MIN -0.1203 at Elt/GP 1/11  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 10.00  
 Max 0.5213E-01 at Node 12  
 Min -0.1203 at Node 4

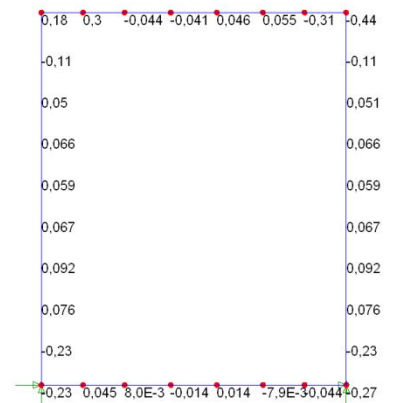


**Figura A.2.1.507 – Face da porta – Diagrama My e Mz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 1.630 at Elt/GP 120/1  
 MIN -0.9687 at Elt/GP 759/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 101.0  
 Max 1.386 at Node 441  
 Min -0.9373 at Node 1994

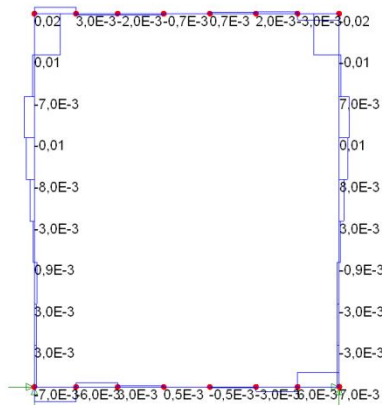


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.6084 at Elt/GP 755/1  
 MIN -0.6333 at Elt/GP 764/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 101.0  
 Max 0.2998 at Node 1948  
 Min -0.4394 at Node 294



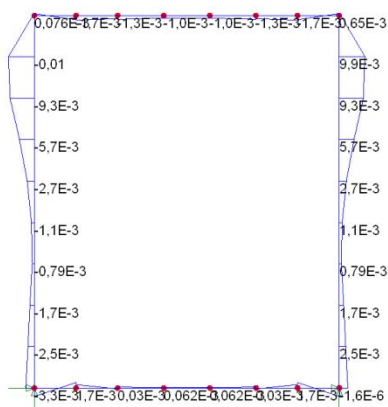
**Figura A.2.1.508 – Face frontal – Diagrama Fx e Fy**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.3086E-01 at Elt/GP 136/1  
 MIN -0.3048E-01 at Elt/GP 75/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fz  
 Peak Range(%): 101.0  
 Max 0.1911E-01 at Node 296  
 Min -0.1896E-01 at Node 294

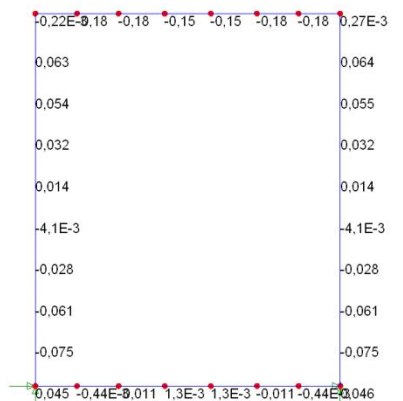


**Figura A.2.1.509 – Face frontal – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.9980E-02 at Elt/GP 75/1  
 MIN -0.1007E-01 at Elt/GP 136/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =My  
 Peak Range(%): 80.00  
 Max 0.9931E-02 at Node 320  
 Min -0.1002E-01 at Node 1913

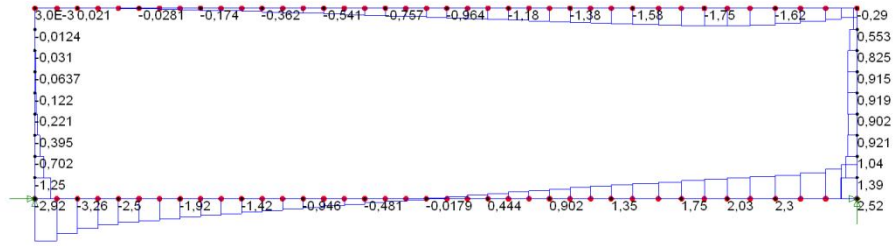


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.7805E-01 at Elt/GP 65/1  
 MIN -0.1851 at Elt/GP 762/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 101.0  
 Max 0.6384E-01 at Node 320  
 Min -0.1848 at Node 2018



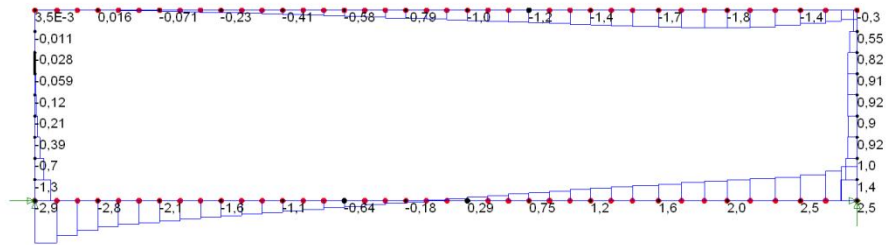
**Figura A.2.1.510 – Face frontal – Diagrama My e Mz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 3.411 at Elk/GP 731/1  
 MIN -4.237 at Elk/GP 20/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 3.207 at Node 1930  
 Min -3.877 at Node 37



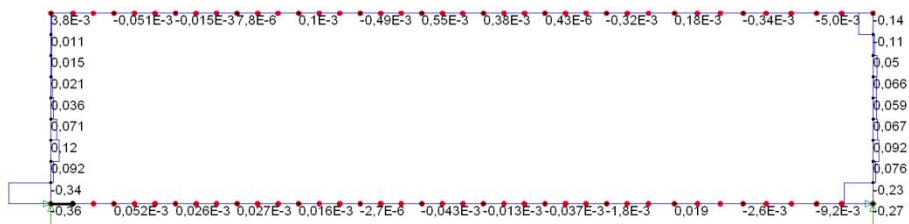
**Figura A.2.1.511 – Face lateral 1 – Diagrama Fx**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 3.418 at Elk/GP 46/1  
 MIN -4.232 at Elk/GP 7/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 3.214 at Node 379  
 Min -3.873 at Node 26



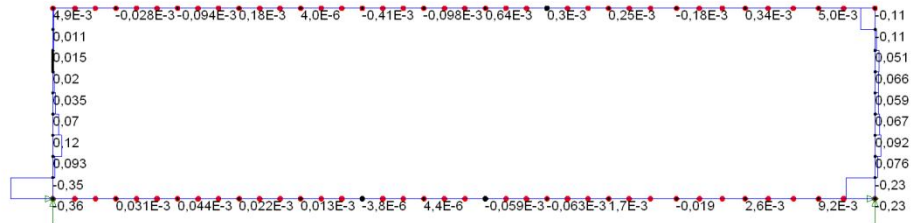
**Figura A.2.1.512 – Face lateral 2 – Diagrama Fx**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.1435 at Elk/GP 47/1  
 MIN -0.7264 at Elk/GP 41/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 10,00  
 Max 0.1187 at Node 116  
 Min -0.3632 at Node 12



**Figura A.2.1.513 – Face lateral 1 – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.1500 at Elt/GP 3/1  
 MIN -0.7268 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 10,00  
 Max 0.1221 at Node 8  
 Min -0.3634 at Node 1



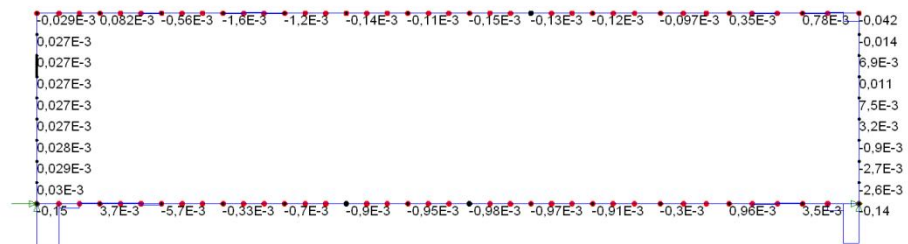
**Figura A.2.1.514 – Face lateral 2 – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.3086E-01 at Elt/GP 136/1  
 MIN -0.2945 at Elt/GP 20/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 0.1439E-01 at Node 1913  
 Min -0.1634 at Node 1930



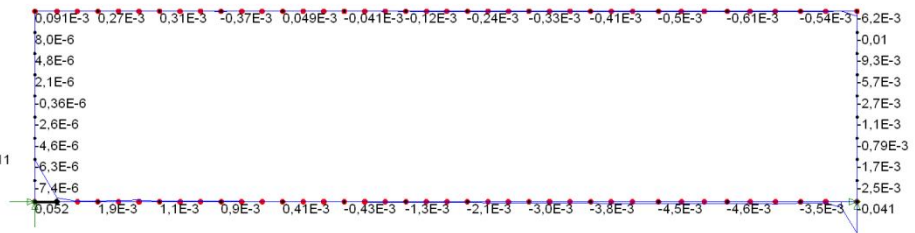
**Figura A.2.1.515 – Face lateral 1 – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1176E-01 at Elt/GP 73/1  
 MIN -0.2936 at Elt/GP 7/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 0.1074E-01 at Node 316  
 Min -0.1636 at Node 379



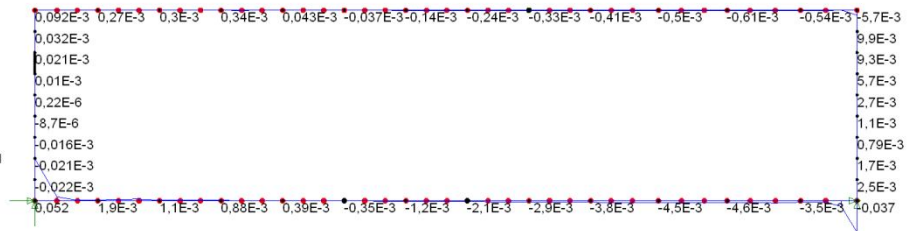
**Figura A.2.1.516 – Face lateral 2 – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.1043 at Elt/GP 20/1  
 MIN -0.7773E-01 at Elt/GP 731/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0.5215E-01 at Node 12  
 Min -0.4051E-01 at Node 160



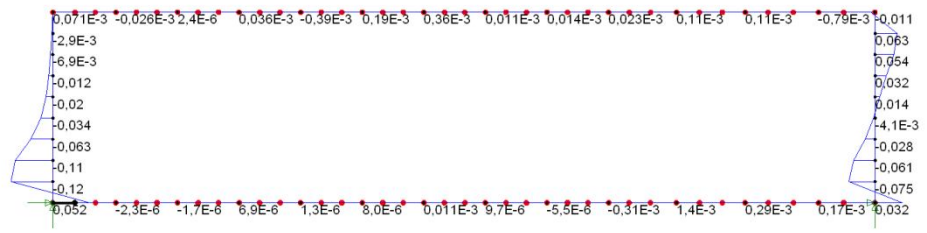
**Figura A.2.1.517 – Face lateral 1 – Diagrama My**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.1041 at Elt/GP 7/1  
 MIN -0.7786E-01 at Elt/GP 46/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0.5202E-01 at Node 1  
 Min -0.3729E-01 at Node 159



**Figura A.2.1.518 – Face lateral 2 – Diagrama My**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.1043 at Elt/GP 41/1  
 MIN -0.1199 at Elt/GP 41/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 10,00  
 Max 0.6326E-01 at Node 1913  
 Min -0.1199 at Node 104



**Figura A.2.1.519 – Face lateral 1 – Diagrama Mz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.1041 at Elm/GP 1/1  
 MIN -0.1203 at Elm/GP 1/11  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 10.00  
 Max 0.6384E-01 at Node 320  
 Min -0.1203 at Node 4

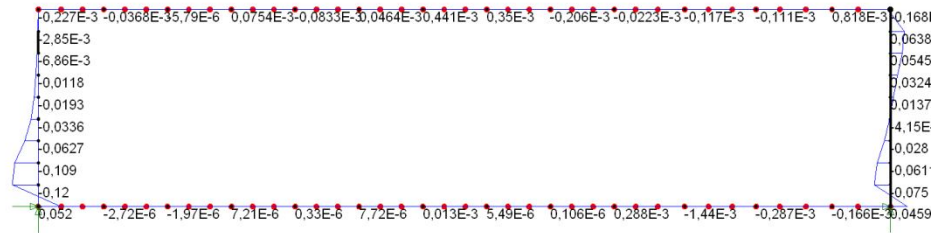


Figura A.2.1.520 – Face lateral 2 – Diagrama Mz

Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.1015 at Elm/GP 760/1  
 MIN -0.6886E-01 at Elm/GP 817/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 15.00  
 Max 0.5992E-01 at Node 394  
 Min -0.5635E-01 at Node 2144

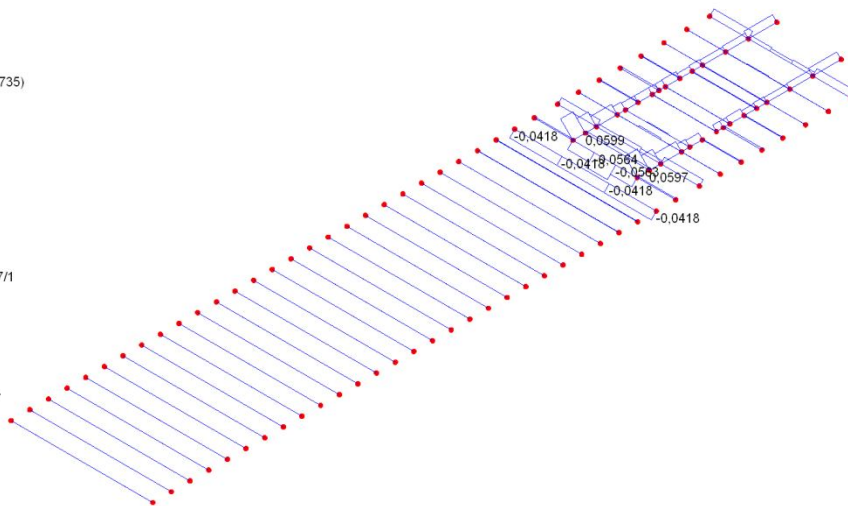


Figura A.2.1.521 – Estrutura da base – Diagrama Fx

Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.8604E-01 at Elm/GP 305/1  
 MIN -0.8572E-01 at Elm/GP 306/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 30.00  
 Max 0.8604E-01 at Node 132  
 Min -0.8572E-01 at Node 133

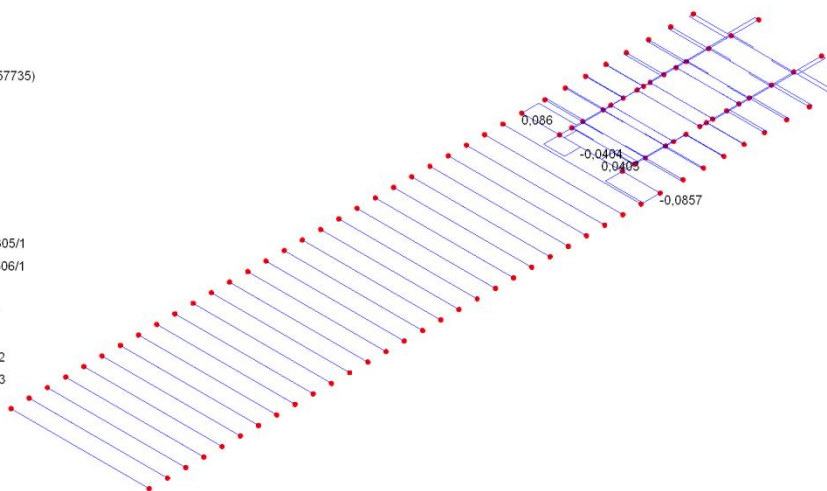
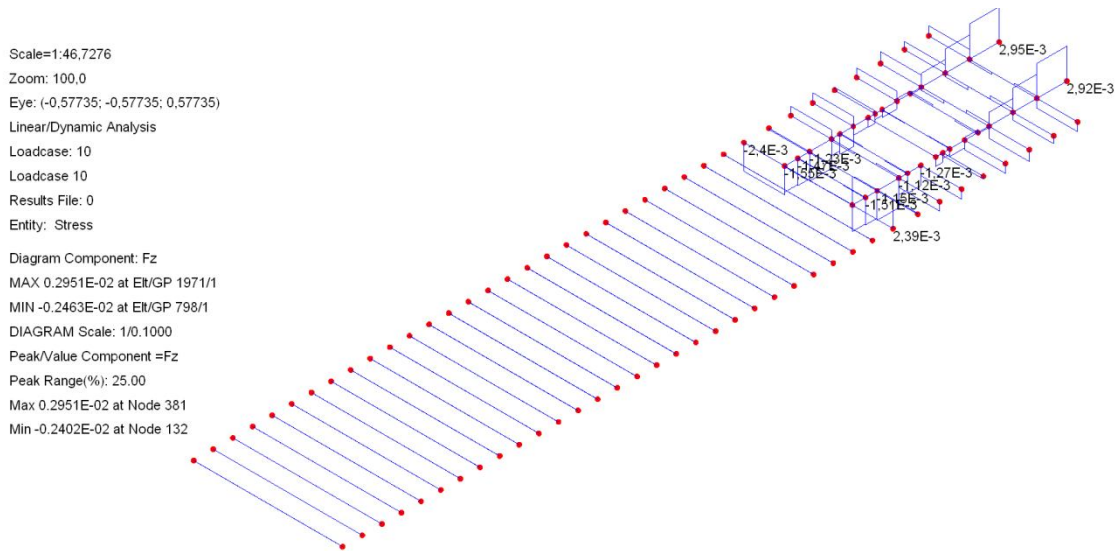
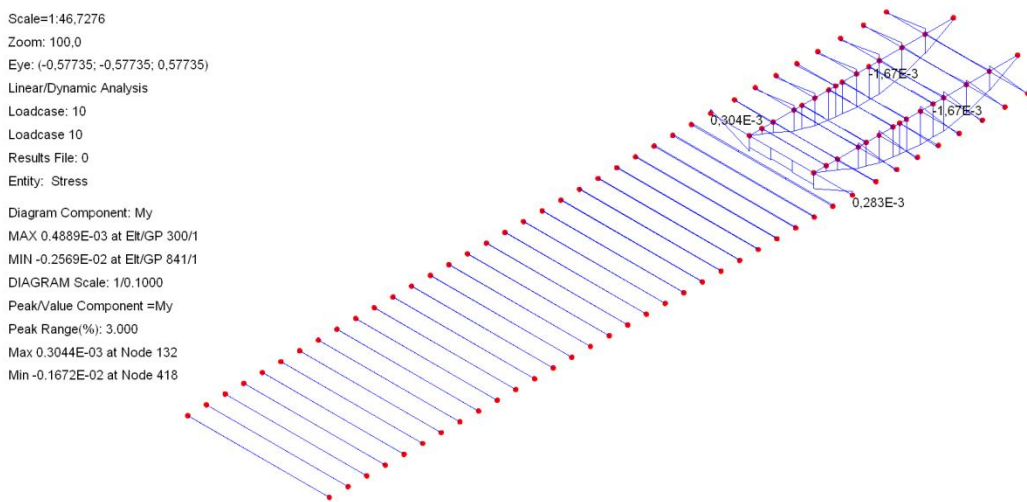


Figura A.2.1.522 – Estrutura da base – Diagrama Fy



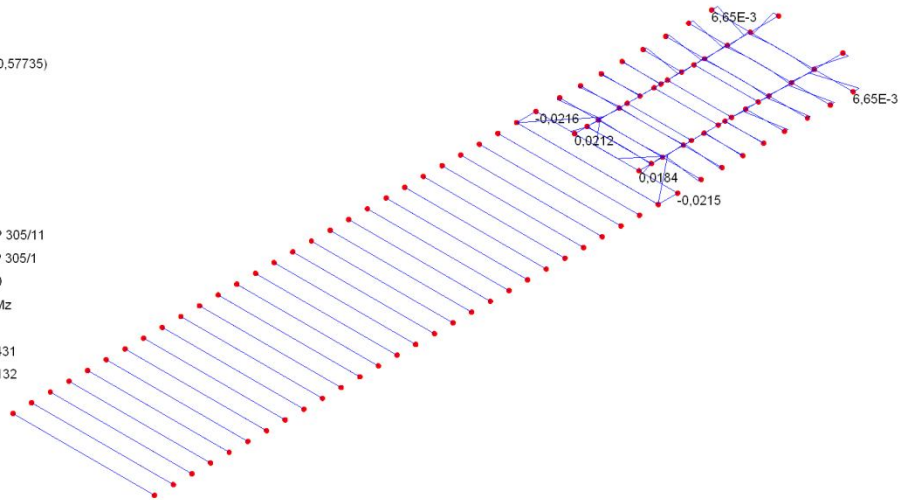
**Figura A.2.1.523 – Estrutura da base – Diagrama Fz**



**Figura A.2.1.524 – Estrutura da base – Diagrama My**

Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress

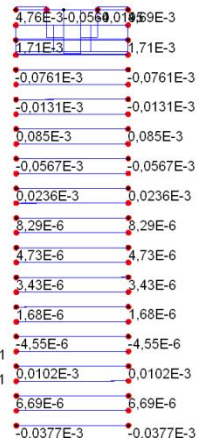
Diagram Component: Mz  
 MAX 0.3185E-01 at EII/GP 305/11  
 MIN -0.2164E-01 at EII/GP 305/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.2124E-01 at Node 431  
 Min -0.2164E-01 at Node 132



**Figura A.2.1.525 – Estrutura da base – Diagrama Mz**

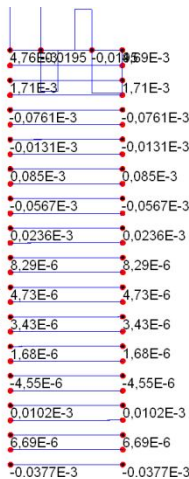
Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress

Peak/Value Component =Fx  
 Peak Range(%): 35.00  
 Max 0.4756E-02 at Node 132  
 Min -0.5635E-01 at Node 2144  
 Diagram Component: Fx  
 MAX 0.4756E-02 at EII/GP 305/1  
 MIN -0.6886E-01 at EII/GP 817/1  
 DIAGRAM Scale: 1/0.1000



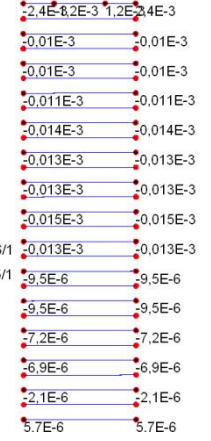
Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress

Diagram Component: Fy  
 MAX 0.8604E-01 at EII/GP 305/1  
 MIN -0.8572E-01 at EII/GP 306/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 45.00  
 Max 0.4756E-02 at Node 132  
 Min -0.5635E-01 at Node 2144



Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress

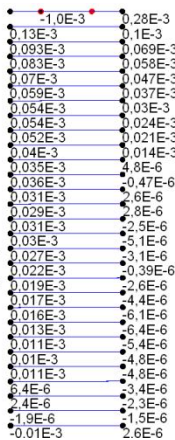
Diagram Component: Fz  
 MAX 0.2392E-02 at EII/GP 306/1  
 MIN -0.2402E-02 at EII/GP 305/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 45.00  
 Max 0.2392E-02 at Node 133  
 Min -0.2402E-02 at Node 132



**Figura A.2.1.526 – Perfis transversais – Diagrama Fx, Fy e Fz**

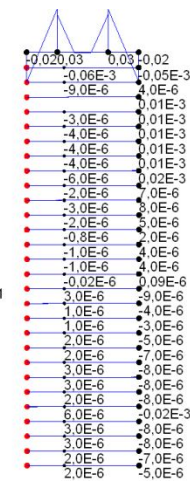
Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress

Diagram Component: My  
 MAX 0.3044E-03 at EII/GP 305/1  
 MIN -0.1204E-02 at EII/GP 306/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 49.00  
 Max 0.3044E-03 at Node 132  
 Min -0.1052E-02 at Node 433



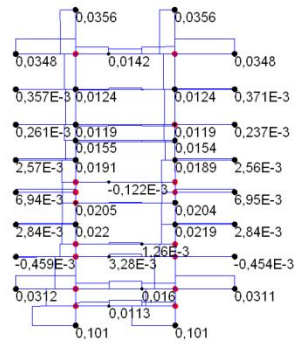
Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress

Diagram Component: Mz  
 MAX 0.3185E-01 at EII/GP 305/11  
 MIN -0.2164E-01 at EII/GP 305/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.2975E-01 at Node 431  
 Min -0.2164E-01 at Node 132



**Figura A.2.1.527 – Perfis transversais My e Mz**

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.1015 at Elm/GP 760/1  
 MIN -0.2726E-02 at Elm/GP 885/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 35.00  
 Max 0.1015 at Node 431  
 Min -0.2373E-02 at Node 2947



Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.2343E-01 at Elm/GP 757/1  
 MIN -0.2351E-01 at Elm/GP 760/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 35.00  
 Max 0.2343E-01 at Node 433  
 Min -0.2351E-01 at Node 431

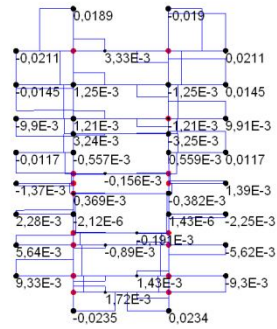


Figura A.2.1.528 – Abertura para os garfos - Perfis transversais – Diagrama Fx e Fy

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.2951E-02 at Elm/GP 1971/1  
 MIN -0.2463E-02 at Elm/GP 798/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 35.00  
 Max 0.2951E-02 at Node 381  
 Min -0.2203E-02 at Node 433

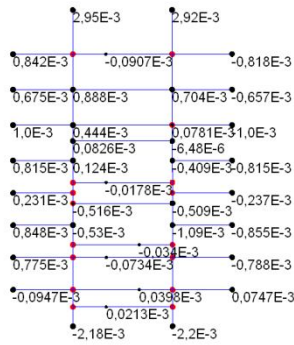
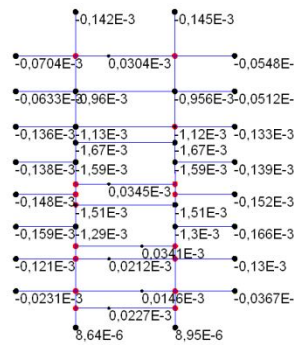


Figura A.2.1.529 – Abertura para os garfos - Perfis transversais – Diagrama Fz

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.4889E-03 at Elm/GP 300/1  
 MIN -0.2569E-02 at Elm/GP 841/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 35.00  
 Max 0.4964E-04 at Node 2947  
 Min -0.1672E-02 at Node 418



Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 10  
 Loadcase 10  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.6652E-02 at Elm/GP 303/1  
 MIN -0.6455E-02 at Elm/GP 303/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.6652E-02 at Node 156  
 Min -0.5705E-02 at Node 392

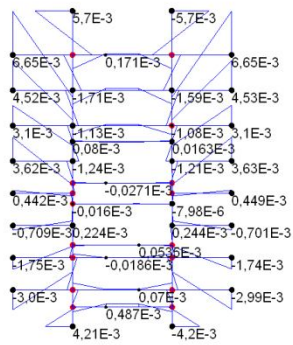


Figura A.2.1.530 – Abertura para os garfos - Perfis transversais – Diagrama My e Mz

## Caso de carga 10

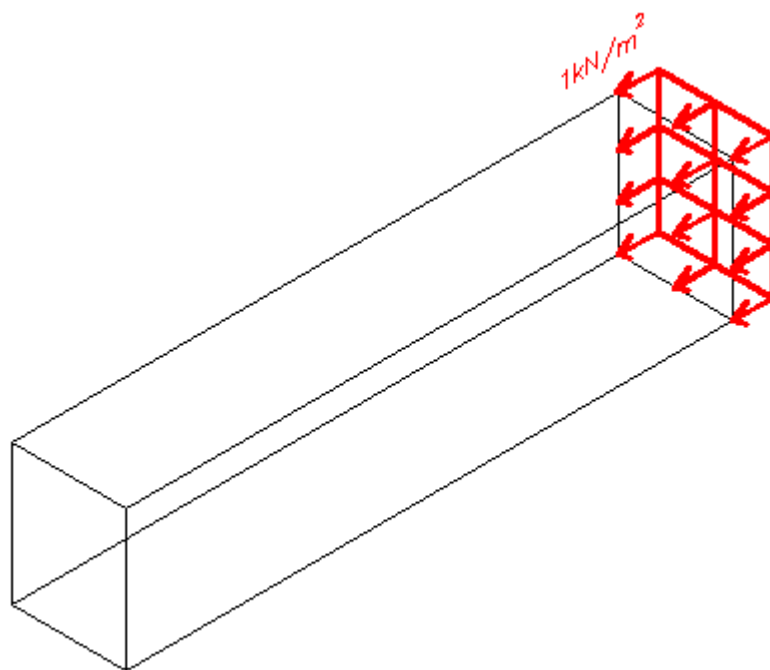


Figura A.2.1.531 – Caso de carga 11

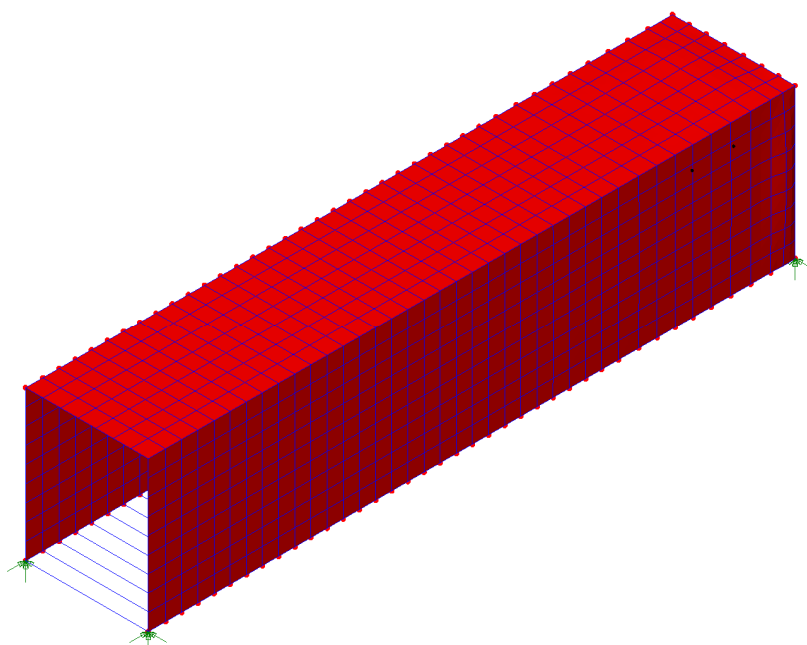
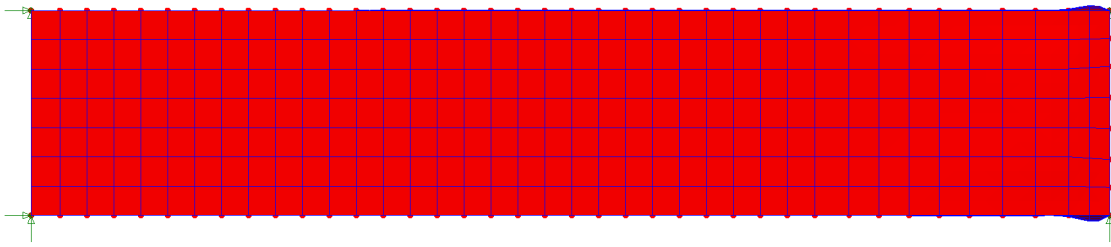
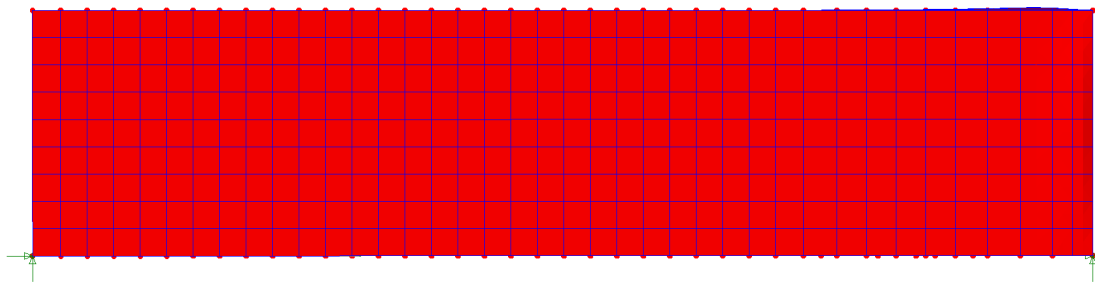


Figura A.2.1.532 – Vista geral da deformada

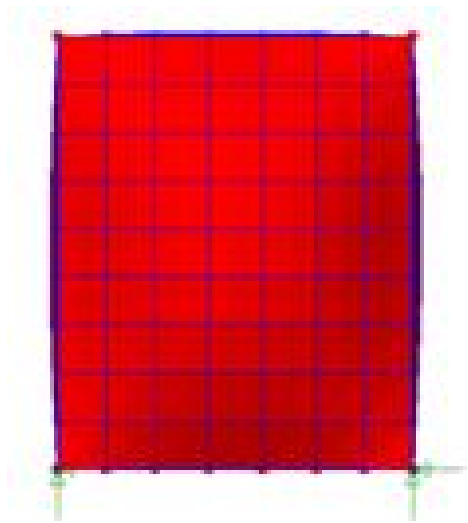
Deslocamento máximo: 53,21 mm.



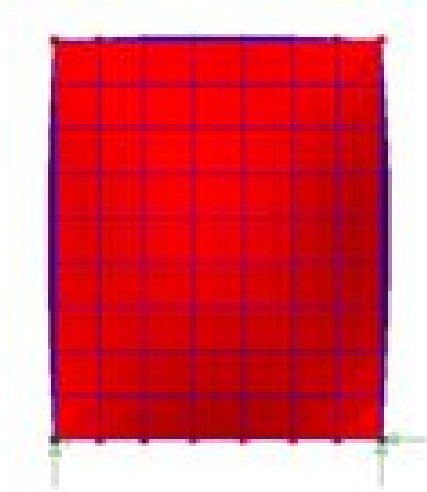
**Figura A.2.1.533 – Vista da cobertura deformada**



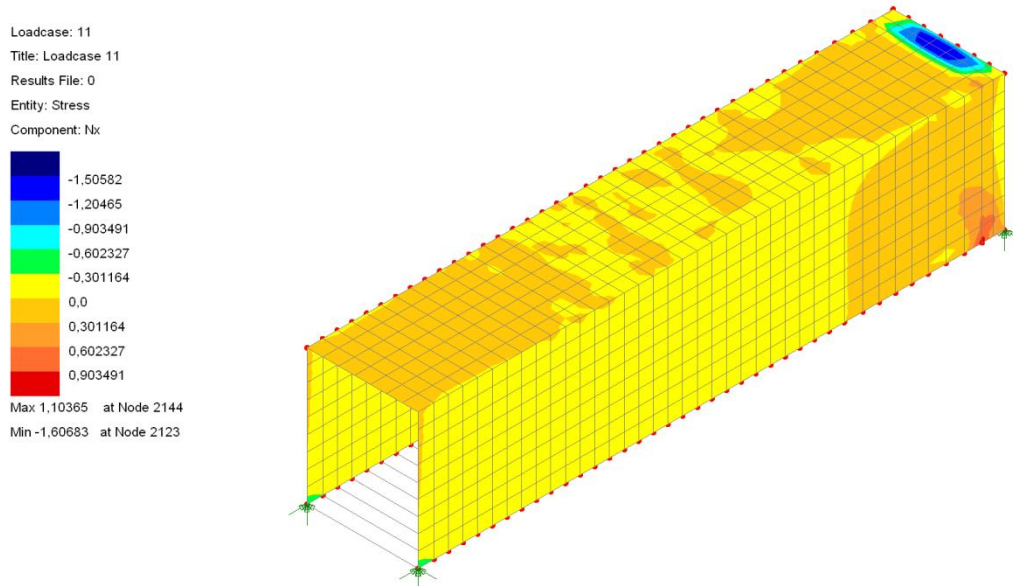
**Figura A.2.1.534 – Vista da face lateral deformada**



**Figura A.2.1.535 – Vista da face da porta deformada**



**Figura A.2.1.536 – Vista da face frontal deformada**



**Figura A.2.1.537 – Vista geral – Esforço Nx**

Loadcase: 11  
Title: Loadcase 11  
Results File: 0  
Entity: Stress  
Component: Ny  
-2,18975  
-1,64231  
-1,09487  
-0,547437  
0,222045E-15  
0,547437  
1,09487  
1,64231  
2,18975  
Max 2,51364 at Node 380  
Min -2,4133 at Node 1966

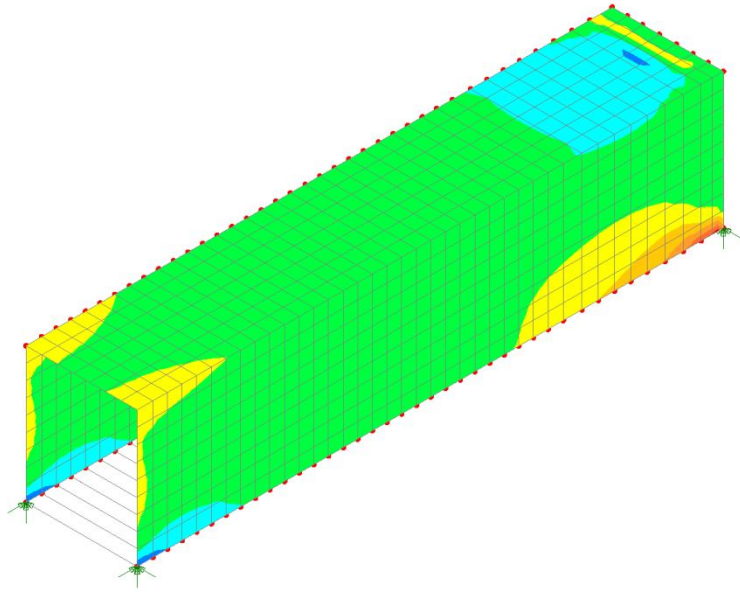


Figura A.2.1.538 – Vista geral – Esforço Ny

Loadcase: 11  
Title: Loadcase 11  
Results File: 0  
Entity: Stress  
Component: Nxy  
-0,912331  
-0,684249  
-0,456166  
-0,228083  
0,0  
0,228083  
0,456166  
0,684249  
0,912331  
Max 1,02643 at Node 433  
Min -1,02632 at Node 431

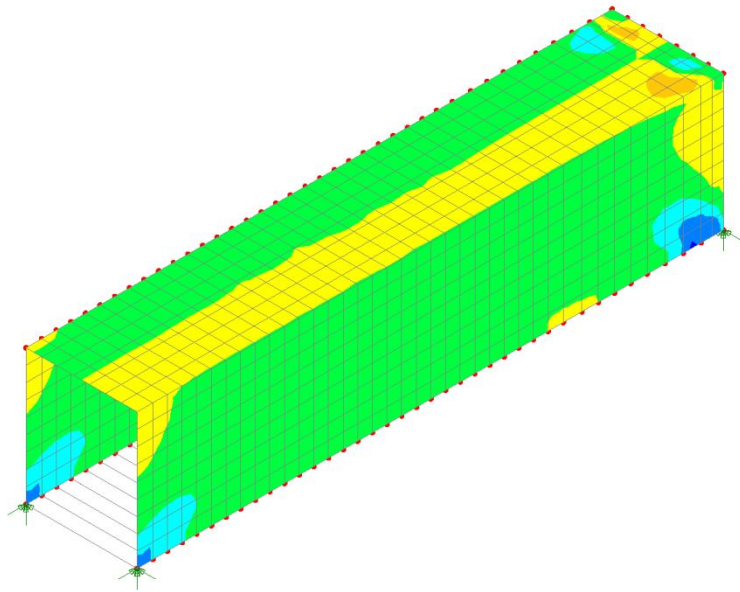
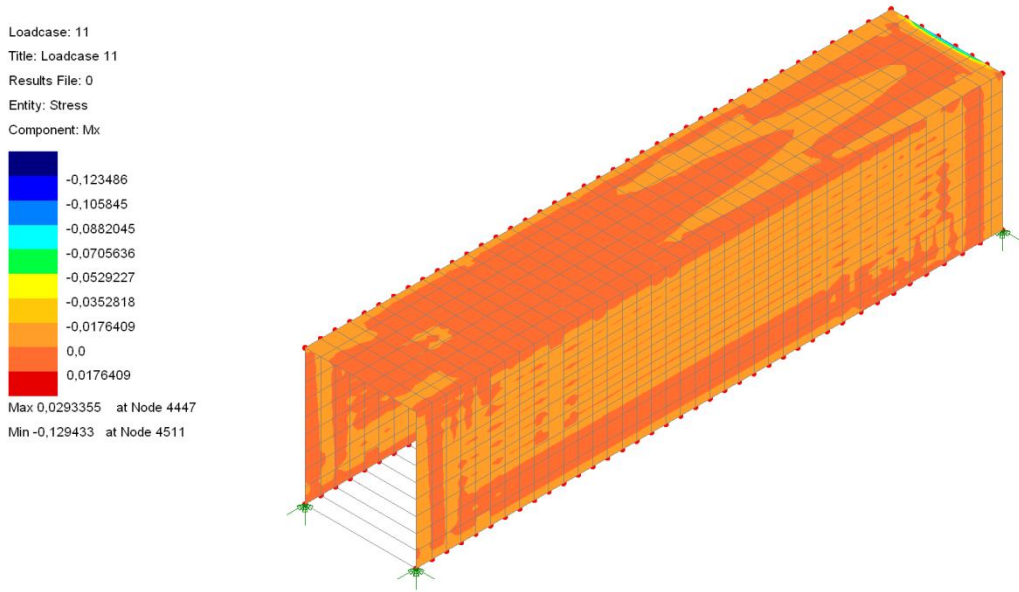
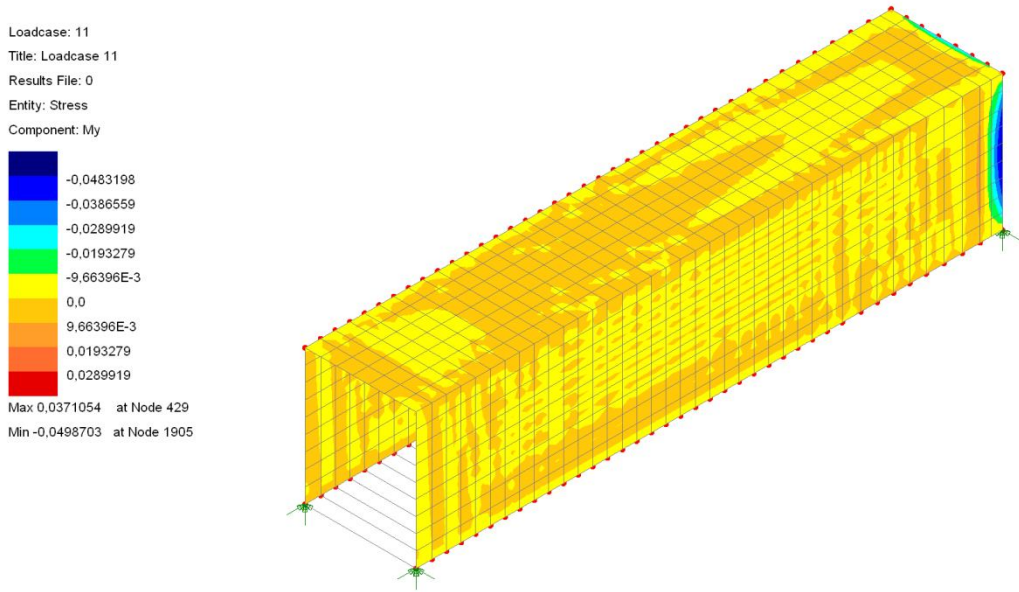


Figura A.2.1.539 – Vista geral – Esforço Nxy

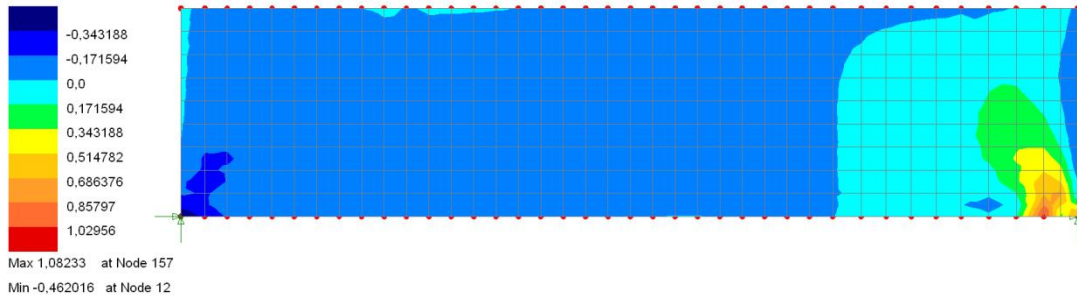


**Figura A.2.1.540 – Vista geral – Esforço Mx**



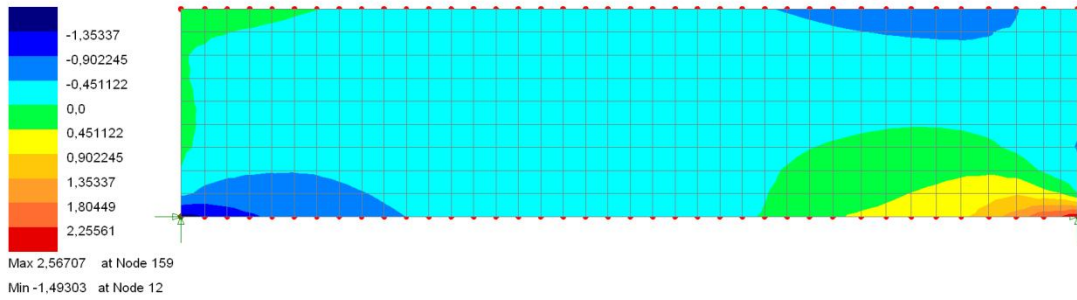
**Figura A.2.1.541 – Vista geral – Esforço My**

Loadcase: 11  
Title: Loadcase 11  
Results File: 0  
Entity: Stress  
Component: Nx



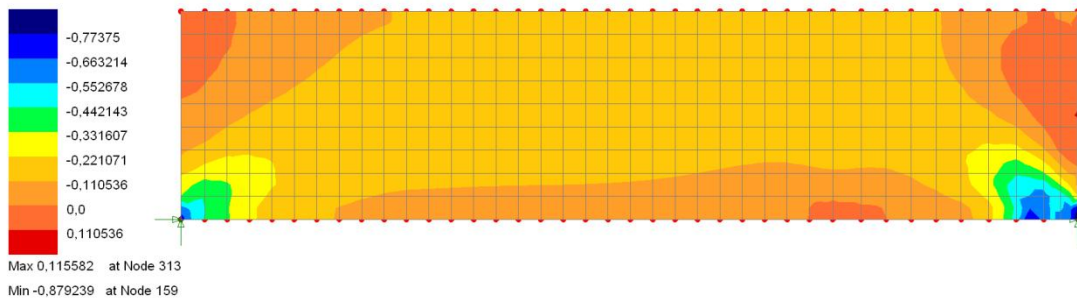
**Figura A.2.1.542 – Face lateral – Esforço Nx**

Loadcase: 11  
Title: Loadcase 11  
Results File: 0  
Entity: Stress  
Component: Ny



**Figura A.2.1.543 – Face lateral – Esforço Ny**

Loadcase: 11  
Title: Loadcase 11  
Results File: 0  
Entity: Stress  
Component: Nxy



**Figura A.2.1.544 – Face lateral – Esforço Nxy**

Loadcase: 11  
Title: Loadcase 11  
Results File: 0  
Entity: Stress  
Component: Mx

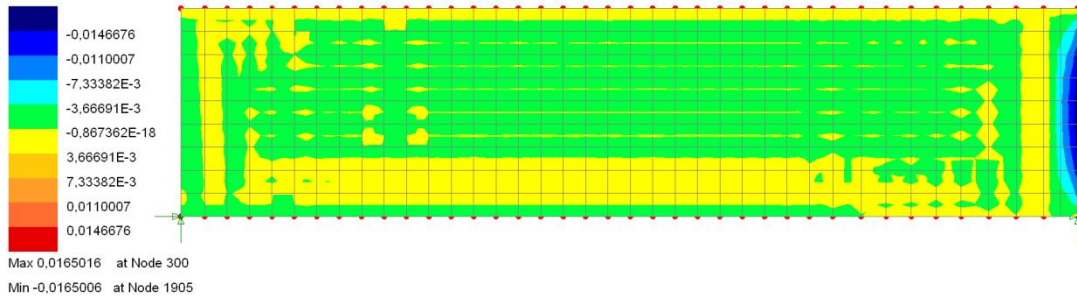


Figura A.2.1.545 – Face lateral – Esforço Mx

Loadcase: 11  
Title: Loadcase 11  
Results File: 0  
Entity: Stress  
Component: My

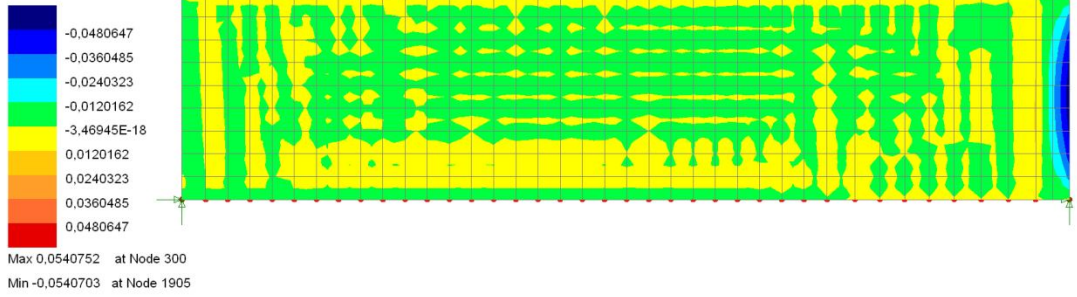


Figura A.2.1.546 – Face lateral – Esforço My

Loadcase: 11  
Title: Loadcase 11  
Results File: 0  
Entity: Stress  
Component: Nx

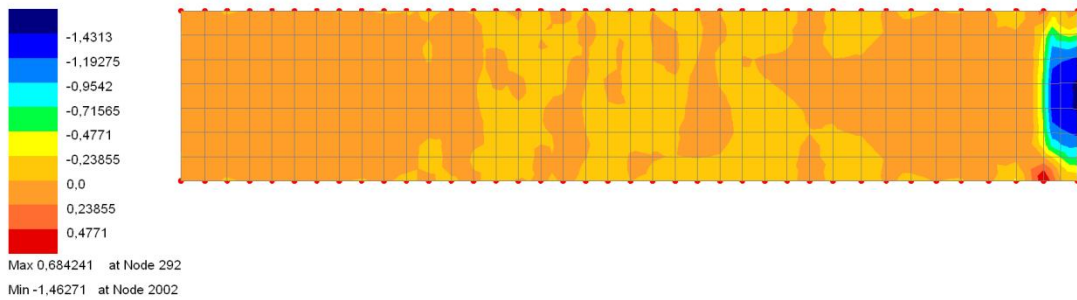
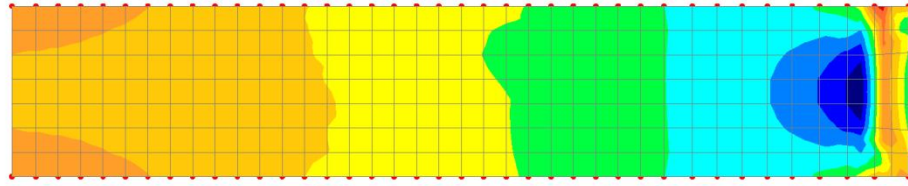


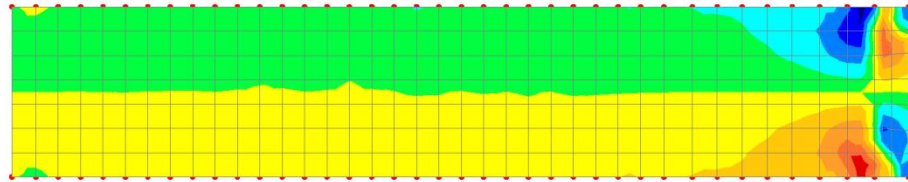
Figura A.2.1.547 – Cobertura – Esforço Nx

Loadcase: 11  
 Title: Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Component: Ny  
 -1,04494  
 -0,870783  
 -0,696626  
 -0,52247  
 -0,348313  
 -0,174157  
 0,0  
 0,174157  
 0,348313  
 Max 0,410677 at Node 50  
 Min -1,15673 at Node 2867



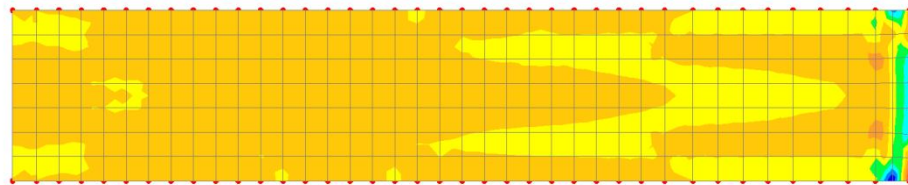
**Figura A.2.1.548 – Cobertura – Esforço Ny**

Loadcase: 11  
 Title: Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Component: Nxy  
 -0,401162  
 -0,300872  
 -0,200581  
 -0,100291  
 0,0277556E-15  
 0,100291  
 0,200581  
 0,300872  
 0,401162  
 Max 0,452796 at Node 1874  
 Min -0,449819 at Node 1857



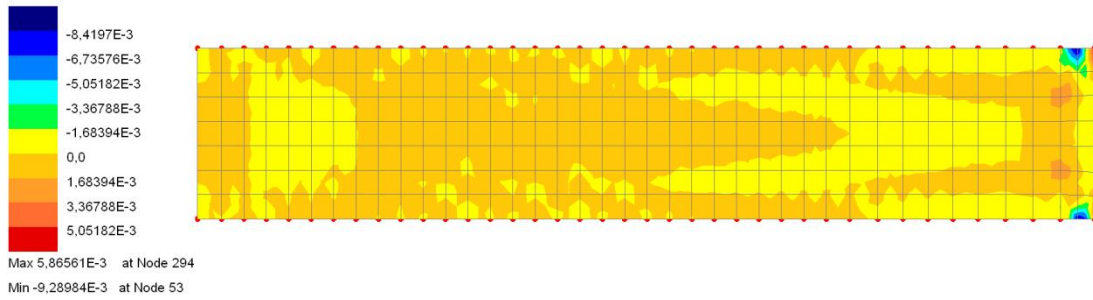
**Figura A.2.1.549 – Cobertura – Esforço Nxy**

Loadcase: 11  
 Title: Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Component: Mx  
 -9,9828E-3  
 -7,98624E-3  
 -5,98968E-3  
 -3,99312E-3  
 -1,99656E-3  
 0,0  
 1,99656E-3  
 3,99312E-3  
 5,98968E-3  
 Max 7,47387E-3 at Node 296  
 Min -0,0104952 at Node 1925



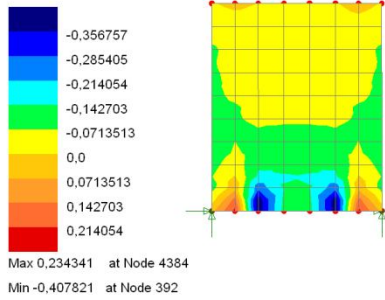
**Figura A.2.1.550 – Cobertura – Esforço Mx**

Loadcase: 11  
 Title: Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Component: My

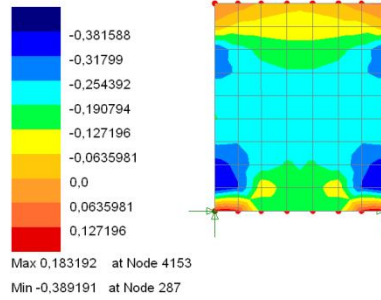


**Figura A.2.1.551 – Cobertura – Esforço My**

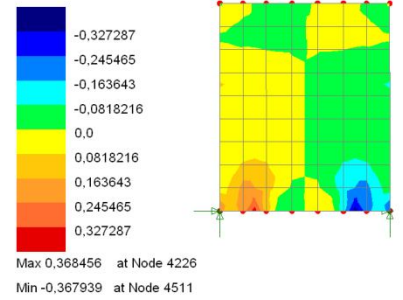
Loadcase: 11  
 Title: Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Component: Nx



Loadcase: 11  
 Title: Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Component: Ny

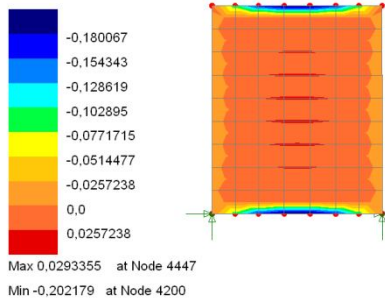


Loadcase: 11  
 Title: Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Component: Nxy

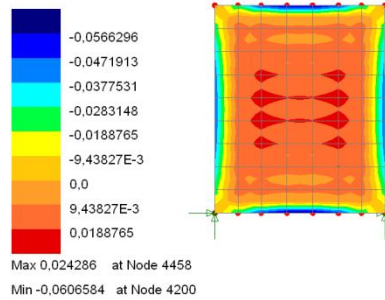


**Figura A.2.1.552 – Face frontal – Esforço Nx, Ny e Nxy**

Loadcase: 11  
 Title: Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Component: Mx



Loadcase: 11  
 Title: Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Component: My



**Figura A.2.1.553 – Face frontal – Esforço Mx e My**

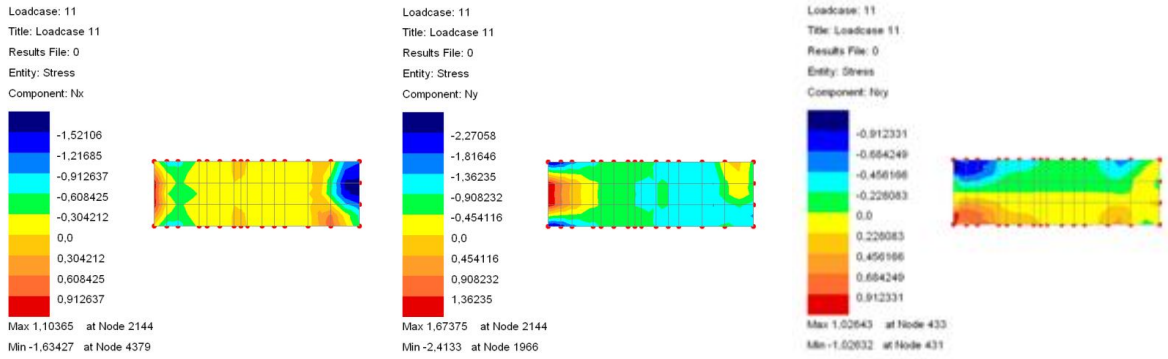


Figura A.2.1.554 – Abertura para os garfos - FP – Esforço Nx, Ny e Nxy

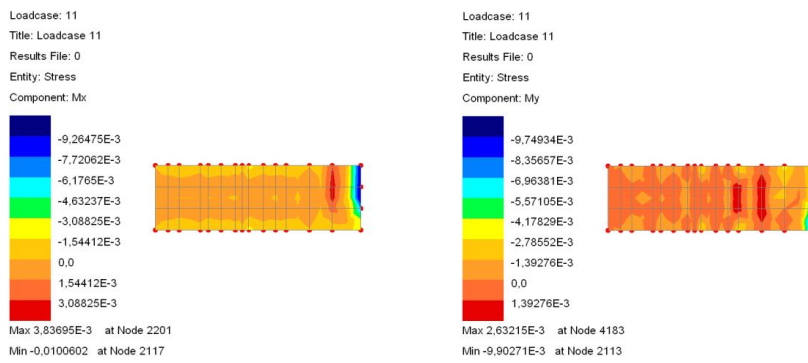


Figura A.2.1.555 – Abertura para os garfos - FP – Esforço Mx e My

Scale=1:68,6304  
Zoom: 100,0  
Eye: (-0,57735; -0,57735; 0,57735)  
Linear/Dynamic Analysis  
Loadcase: 11  
Loadcase 11  
Results File: 0  
Entity: Stress  
Diagram Component: Fx  
MAX 1,279 at Elt/GP 46/1  
MIN -0,7631 at Elt/GP 20/1  
DIAGRAM Scale: 1/0,1000  
Peak/Value Component =Fx  
Peak Range(%): 15,00  
Max 1,222 at Node 379  
Min -0,7021 at Node 37

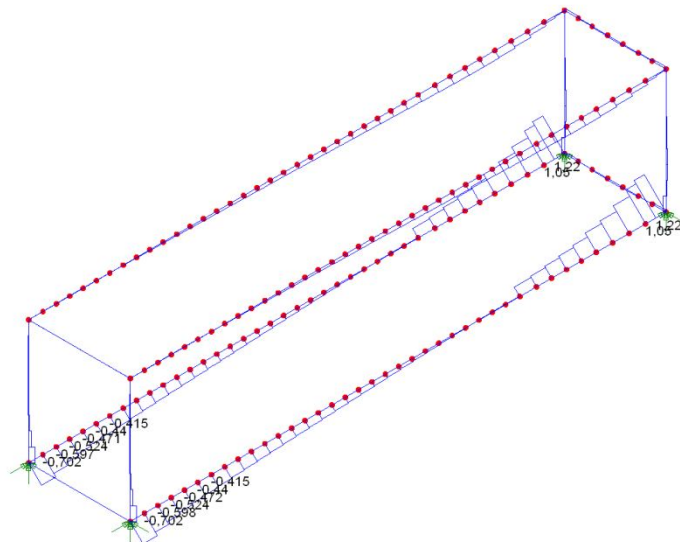
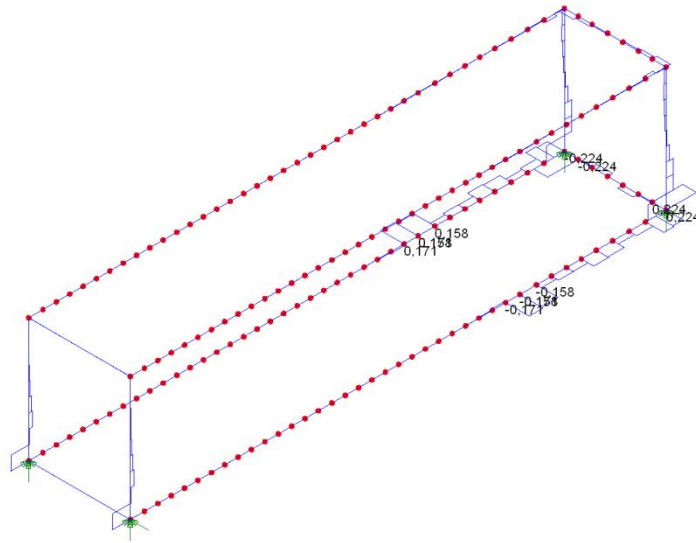


Figura A.2.1.556 – Vista geral – Diagrama Fx

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress

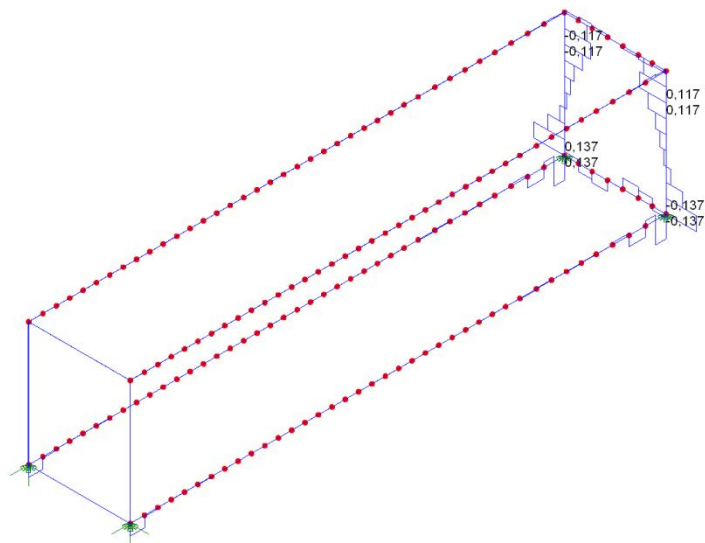
Diagram Component: Fy  
 MAX 0,2237 at Elt/GP 1980/1  
 MIN -0,2238 at Elt/GP 2166/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fy  
 Peak Range(%): 15,00  
 Max 0,2237 at Elt/GP 1980/1  
 Min -0,2238 at Elt/GP 2166/1



**Figura A.2.1.557 – Vista geral – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress

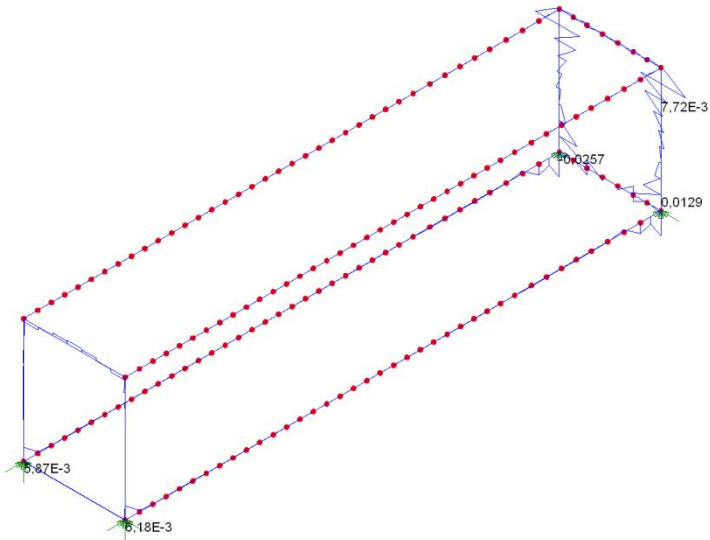
Diagram Component: Fz  
 MAX 0,1370 at Elt/GP 65/1  
 MIN -0,1370 at Elt/GP 120/1  
 DIAGRAM Scale: 1/0,1000  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 0,1370 at Elt/GP 65/1  
 Min -0,1370 at Elt/GP 120/1



**Figura A.2.1.558 – Vista geral – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress

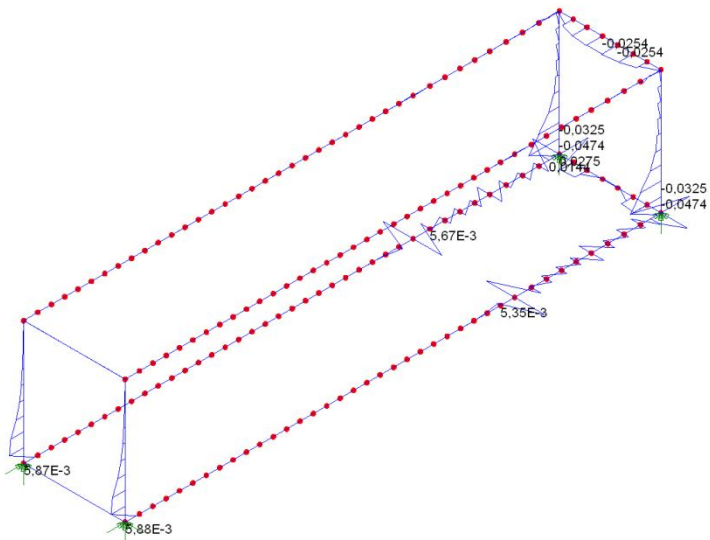
Diagram Component: My  
 MAX 0.4325E-01 at Elt/GP 120/1  
 MIN -0.4325E-01 at Elt/GP 65/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 20,00  
 Max 0.1292E-01 at Node 441  
 Min -0.2575E-01 at Node 159



**Figura A.2.1.559 – Vista geral – Diagrama My**

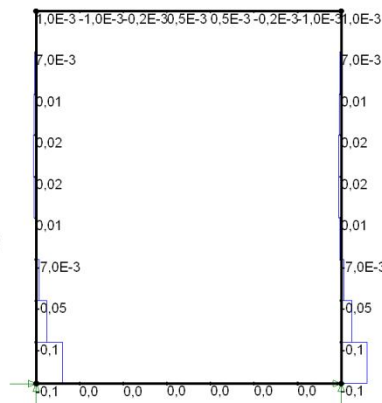
Scale=1:68,6304  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress

Diagram Component: Mz  
 MAX 0.4787E-01 at Elt/GP 567/11  
 MIN -0.4850E-01 at Elt/GP 66/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 30,00  
 Max 0.2748E-01 at Node 159  
 Min -0.4738E-01 at Node 441

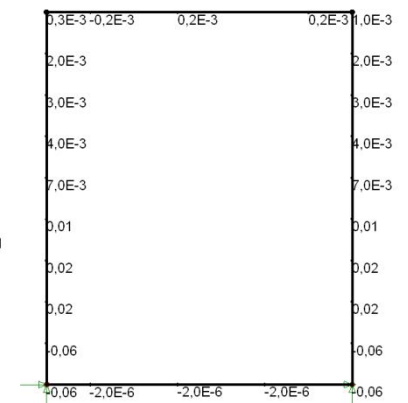


**Figura A.2.1.560 – Vista geral – Diagrama Mz**

Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.2027E-01 at Elt/GP 14/1  
 MIN -0.1983 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 10.00  
 Max 0.1953E-01 at Node 14  
 Min -0.1398 at Node 4

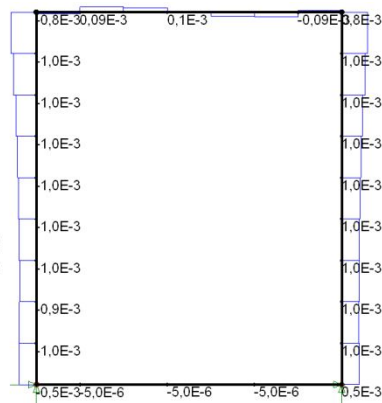


Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.2745E-01 at Elt/GP 3/1  
 MIN -0.1298 at Elt/GP 1/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 10.00  
 Max 0.2246E-01 at Node 8  
 Min -0.6488E-01 at Node 1



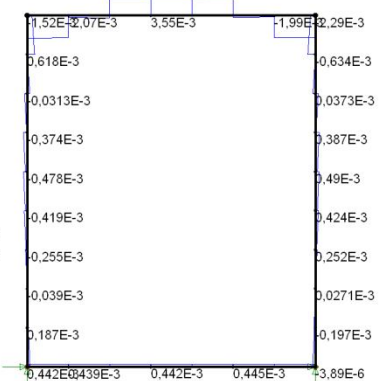
**Figura A.2.1.561 – Face da porta – Diagrama Fx e Fy**

Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1462E-02 at Elt/GP 17/1  
 MIN -0.1440E-02 at Elt/GP 53/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fz  
 Peak Range(%): 10.00  
 Max 0.1388E-02 at Node 42  
 Min -0.1367E-02 at Node 155

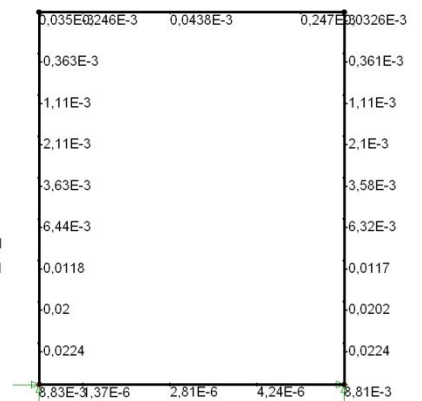


**Figura A.2.1.562 – Face da porta – Diagrama Fz**

Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.4157E-02 at Elt/GP 29/11  
 MIN -0.3830E-02 at Elt/GP 32/11  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =My  
 Peak Range(%): 10.00  
 Max 0.3576E-02 at Node 205  
 Min -0.2288E-02 at Node 2

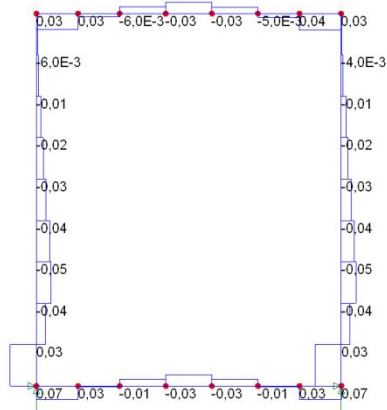


Scale=1,68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.1765E-01 at Elt/GP 41/1  
 MIN -0.2243E-01 at Elt/GP 1/11  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 10.00  
 Max 0.8826E-02 at Node 12  
 Min -0.2243E-01 at Node 4

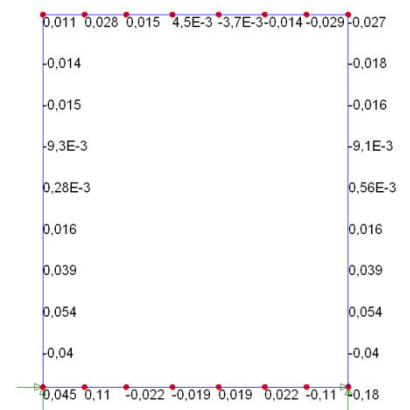


**Figura A.2.1.563 – Face da porta – Diagrama My e Mz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.9294E-01 at Elt/GP 65/1  
 MIN -0.5230E-01 at Elt/GP 122/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 101.0  
 Max 0.7039E-01 at Node 160  
 Min -0.4963E-01 at Node 1903

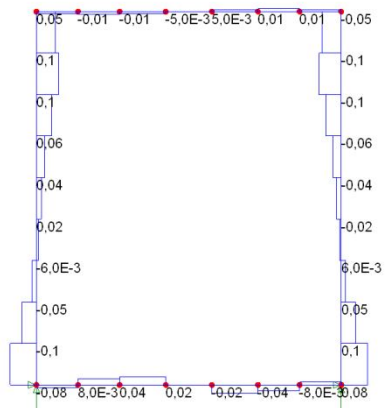


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.2237 at Elt/GP 1980/1  
 MIN -0.2238 at Elt/GP 2166/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 101.0  
 Max 0.1090 at Node 4384  
 Min -0.1786 at Node 159



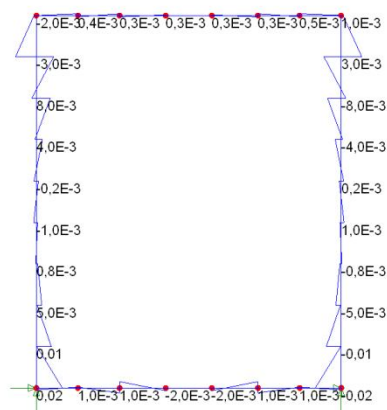
**Figura A.2.1.564 – Face frontal – Diagrama Fx e Fy**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1370 at Elt/GP 65/1  
 MIN -0.1370 at Elt/GP 120/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fz  
 Peak Range(%): 101.0  
 Max 0.1086 at Node 1913  
 Min -0.1090 at Node 320

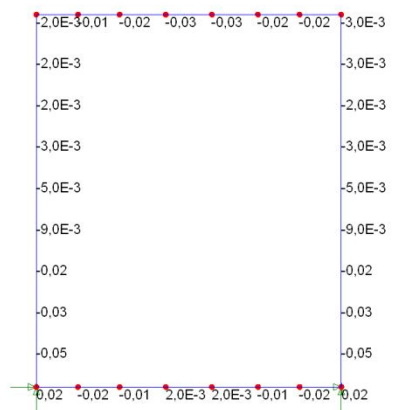


**Figura A.2.1.565 – Face frontal – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.4325E-01 at Elt/GP 120/1  
 MIN -0.4325E-01 at Elt/GP 65/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =My  
 Peak Range(%): 80.00  
 Max 0.2001E-01 at Node 160  
 Min -0.2324E-01 at Node 159

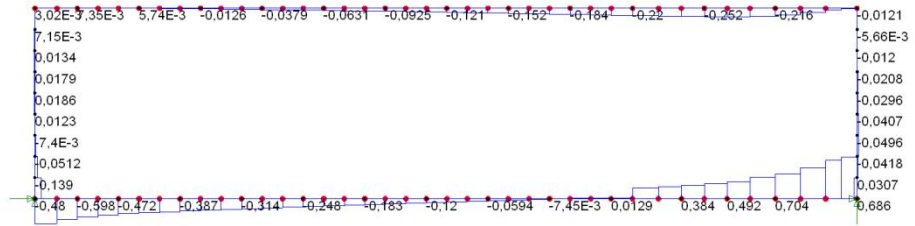


Scale=1:68,6304  
 Zoom: 211,542  
 Eye: (1,0; 0,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.4520E-01 at Elt/GP 1980/11  
 MIN -0.4850E-01 at Elt/GP 66/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 80.00  
 Max 0.2006E-01 at Node 159  
 Min -0.4738E-01 at Node 441



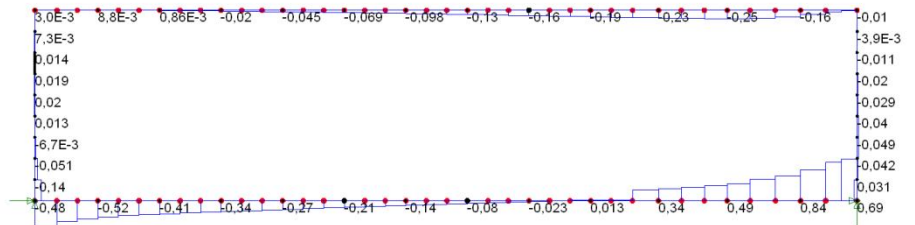
**Figura A.2.1.566 – Face frontal – Diagrama My e Mz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 1.278 at Elt/GP 731/1  
 MIN -0.7631 at Elt/GP 20/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 1.221 at Node 1930  
 Min -0.7021 at Node 37



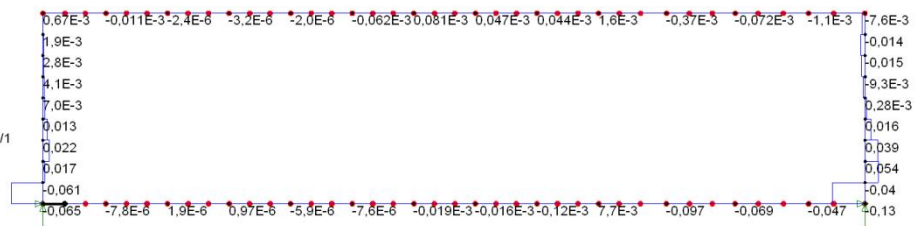
**Figura A.2.1.567 – Face lateral 1 – Diagrama Fx**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 1.279 at Elt/GP 46/1  
 MIN -0.7624 at Elt/GP 7/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 10,00  
 Max 1.222 at Node 379  
 Min -0.7016 at Node 26



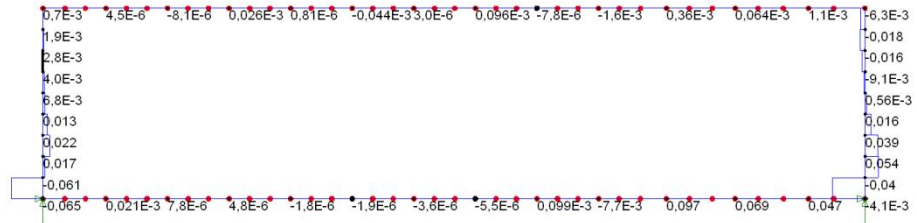
**Figura A.2.1.568 – Face lateral 2 – Diagrama Fx**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.5391E-01 at Elt/GP 121/1  
 MIN -0.1714 at Elt/GP 574/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 10,00  
 Max 0.5363E-01 at Node 1901  
 Min -0.1645 at Node 133



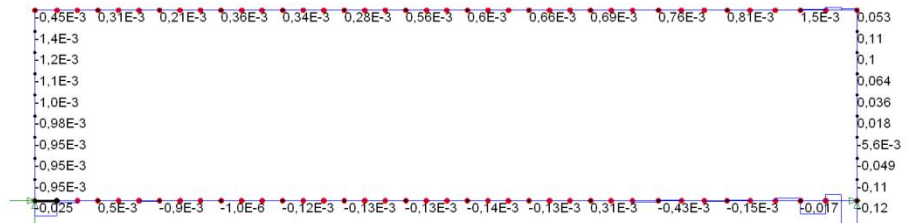
**Figura A.2.1.569 – Face lateral 1 – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.1714 at Etl/GP 567/1  
 MIN -0.1334 at Etl/GP 65/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 10,00  
 Max 0.1646 at Node 132  
 Min -0.6486E-01 at Node 1



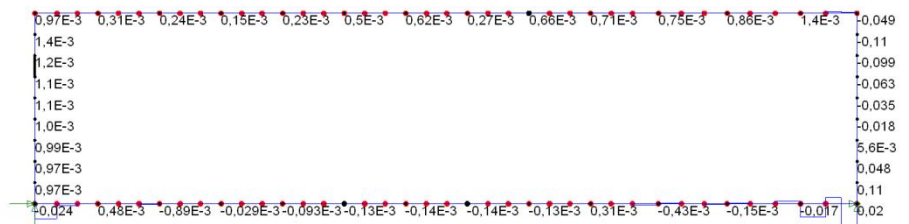
**Figura A.2.1.570 – Face lateral 2 – Diagrama Fy**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1172 at Etl/GP 129/1  
 MIN -0.1370 at Etl/GP 120/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 0.1086 at Node 1913  
 Min -0.1166 at Node 160



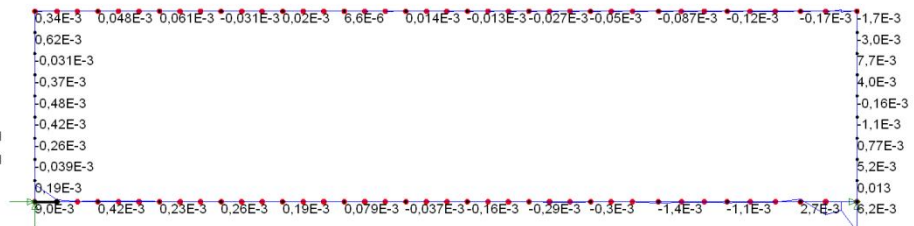
**Figura A.2.1.571 – Face lateral 1 – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.1370 at Etl/GP 65/1  
 MIN -0.1169 at Etl/GP 74/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 10,00  
 Max 0.1065 at Node 287  
 Min -0.1090 at Node 320



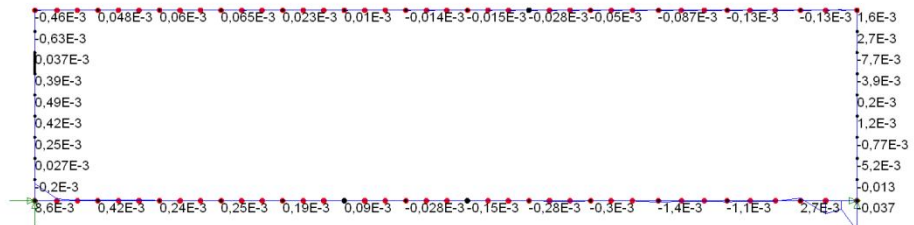
**Figura A.2.1.572 – Face lateral 2 – Diagrama Fz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.4325E-01 at Elt/GP 120/1  
 MIN -0.3460E-01 at Elt/GP 136/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0.1292E-01 at Node 441  
 Min -0.1335E-01 at Node 157



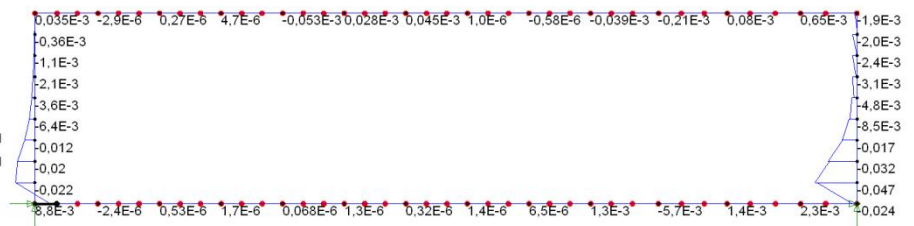
**Figura A.2.1.573 – Face lateral 1 – Diagrama My**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.3399E-01 at Elt/GP 75/1  
 MIN -0.4325E-01 at Elt/GP 65/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 10,00  
 Max 0.8584E-02 at Node 1  
 Min -0.3701E-01 at Node 159



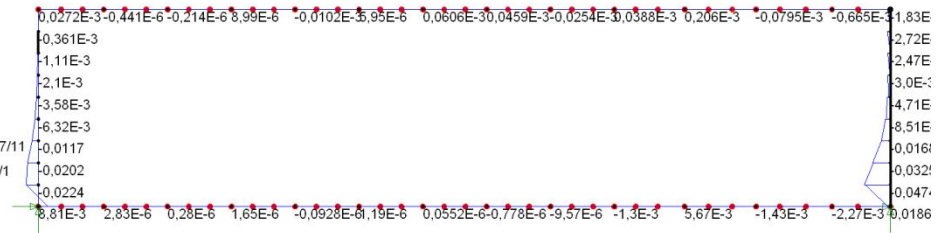
**Figura A.2.1.574 – Face lateral 2 – Diagrama My**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.4507E-01 at Elt/GP 592/1  
 MIN -0.4843E-01 at Elt/GP 121/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 10,00  
 Max 0.8826E-02 at Node 12  
 Min -0.4738E-01 at Node 441



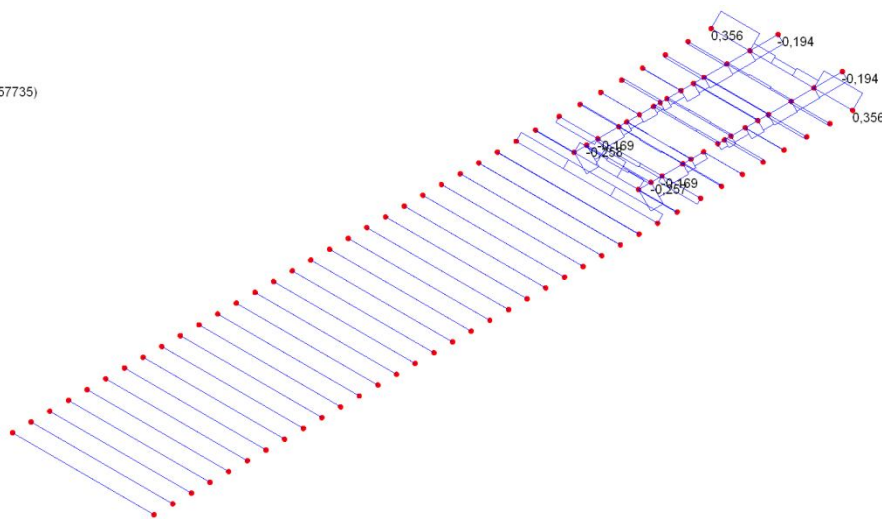
**Figura A.2.1.575 – Face lateral 1 – Diagrama Mz**

Scale=1:68,6304  
 Zoom: 112,0  
 Eye: (0,0; -1,0; 0,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.4787E-01 at Elt/GP 567/11  
 MIN -0.4850E-01 at Elt/GP 66/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Mz  
 Peak Range(%): 10.00  
 Max 0.1862E-01 at Node 159  
 Min -0.4737E-01 at Node 287



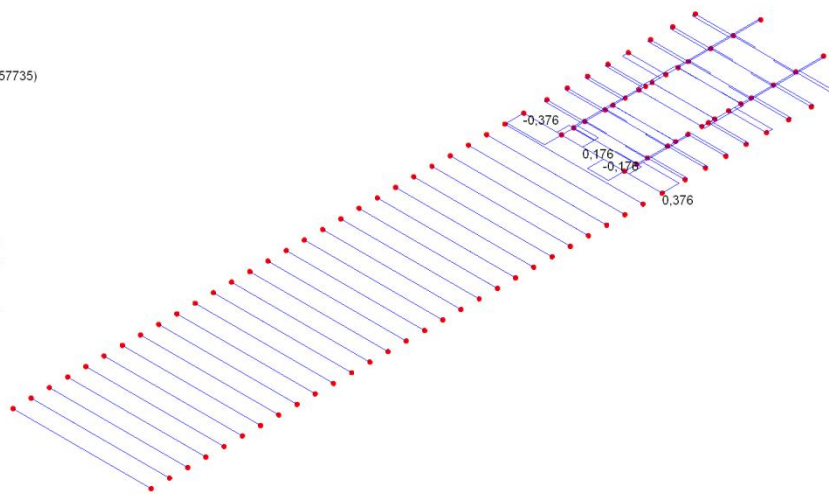
**Figura A.2.1.576 – Face lateral 2 – Diagrama Mz**

Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.3559 at Elt/GP 303/1  
 MIN -0.4420 at Elt/GP 760/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fx  
 Peak Range(%): 15.00  
 Max 0.3559 at Node 156  
 Min -0.2575 at Node 394

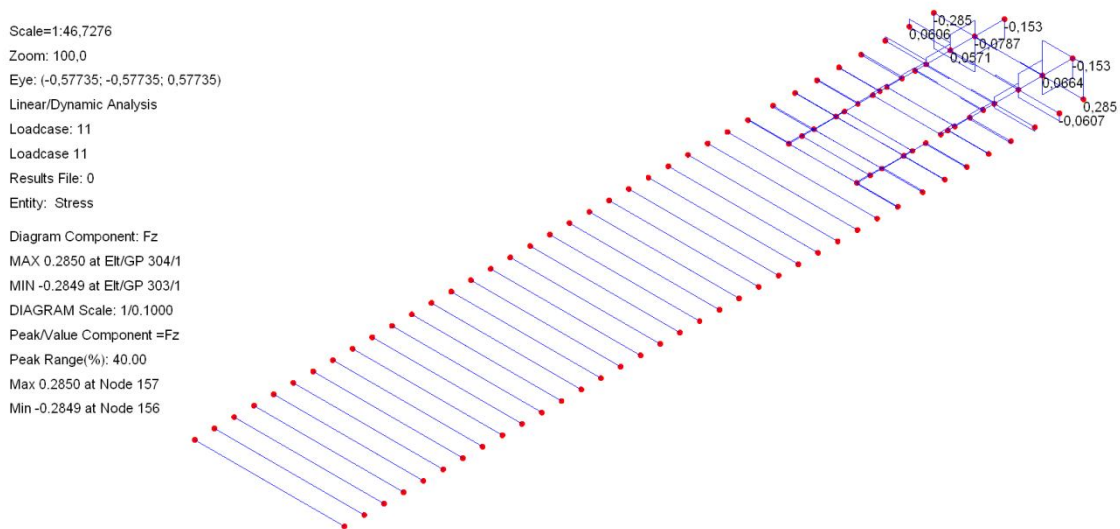


**Figura A.2.1.577 – Estrutura da base – Diagrama Fx**

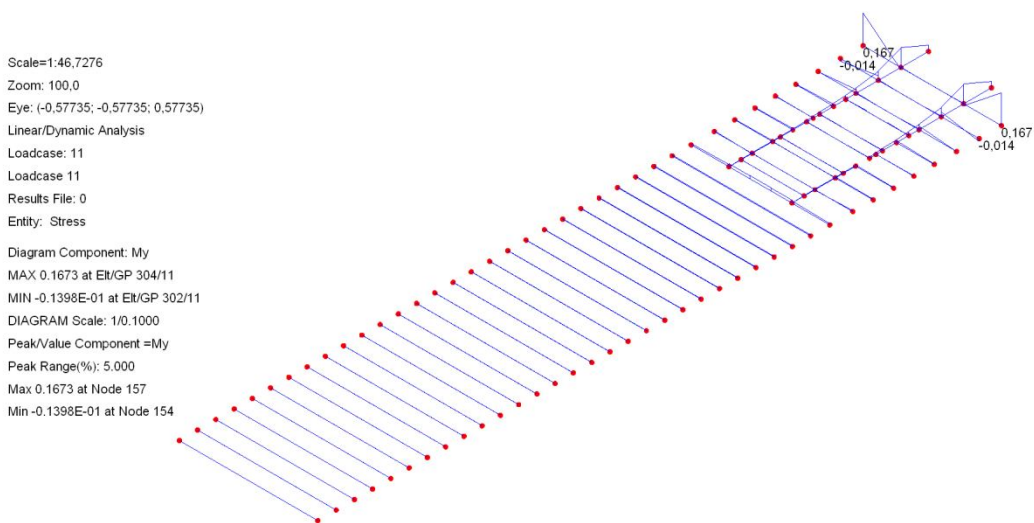
Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.3764 at Elt/GP 306/1  
 MIN -0.3764 at Elt/GP 305/1  
 DIAGRAM Scale: 1/0.1667  
 Peak/Value Component =Fy  
 Peak Range(%): 30.00  
 Max 0.3764 at Node 133  
 Min -0.3764 at Node 132



**Figura A.2.1.578 – Estrutura da base – Diagrama Fy**



**Figura A.2.1.579 – Estrutura da base – Diagrama Fz**



**Figura A.2.1.580 – Estrutura da base – Diagrama My**

Scale=1:46,7276  
 Zoom: 100,0  
 Eye: (-0,57735; -0,57735; 0,57735)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.9491E-01 at Elt/GP 305/1  
 MIN -0.1391 at Elt/GP 305/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.9491E-01 at Node 132  
 Min -0.9273E-01 at Node 431

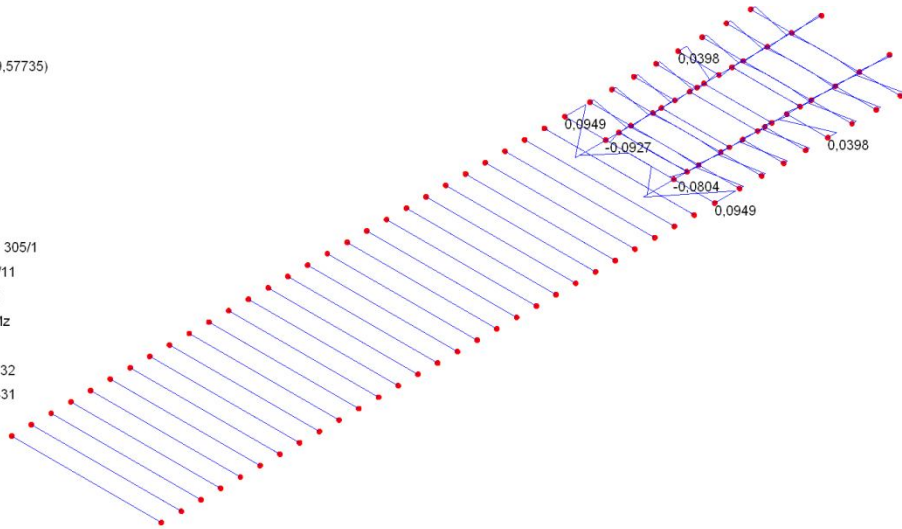
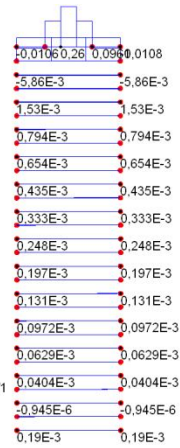
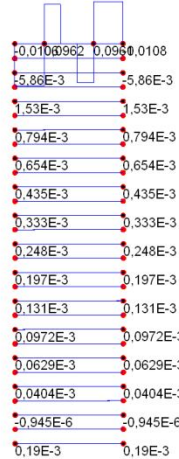


Figura A.2.1.581 – Estrutura da base – Diagrama Mz

Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Peak/Value Component =Fx  
 Peak Range(%): 35.00  
 Max 0.2597 at Node 2144  
 Min -0.1076E-01 at Node 133  
 Diagram Component: Fx  
 MAX 0.3163 at Elt/GP 817/1  
 MIN -0.1076E-01 at Elt/GP 306/1  
 DIAGRAM Scale: 1/0.1000



Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.3764 at Elt/GP 306/1  
 MIN -0.3764 at Elt/GP 305/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 45.00  
 Max 0.2597 at Node 2144  
 Min -0.1076E-01 at Node 133



Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.6620E-02 at Elt/GP 305/1  
 MIN -0.6618E-02 at Elt/GP 306/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 45.00  
 Max 0.6620E-02 at Node 132  
 Min -0.6618E-02 at Node 133

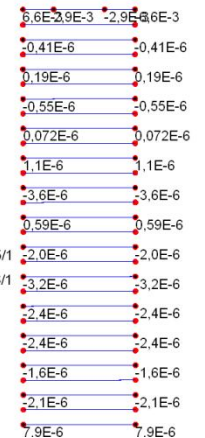
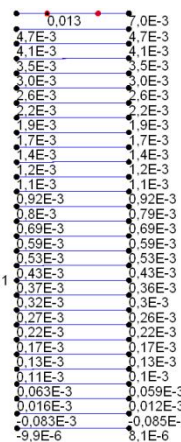


Figura A.2.1.582 – Perfis transversais – Diagrama Fx, Fy e Fz

Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.1656E-01 at Elt/GP 817/1  
 MIN -0.8523E-04 at Elt/GP 2002/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 49.00  
 Max 0.1580E-01 at Node 2144  
 Min -0.8523E-04 at Node 52



Scale=1:46,7276  
 Zoom: 64,2898  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.9491E-01 at Elt/GP 305/1  
 MIN -0.1391 at Elt/GP 305/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.9491E-01 at Node 132  
 Min -0.1299 at Node 431

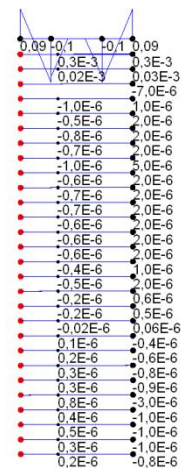
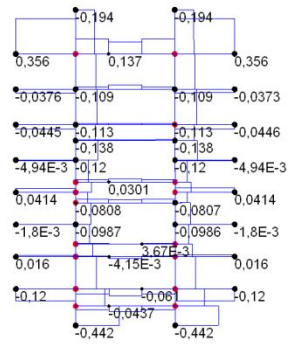


Figura A.2.1.583 – Perfis transversais – Diagrama My e Mz

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fx  
 MAX 0.3559 at Elm/GP 303/1  
 MIN -0.4420 at Elm/GP 760/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fx  
 Peak Range(%): 35.00  
 Max 0.3559 at Node 156  
 Min -0.4420 at Node 431



Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fy  
 MAX 0.1291 at Elm/GP 298/1  
 MIN -0.1291 at Elm/GP 297/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fy  
 Peak Range(%): 35.00  
 Max 0.1291 at Node 148  
 Min -0.1291 at Node 363

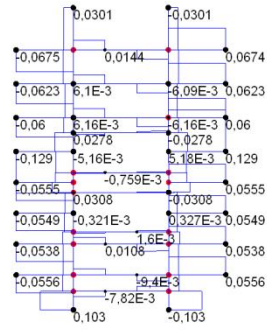


Figura A.2.1.584 – Abertura para os garfos - Perfis transversais – Diagrama Fx e Fy

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Fz  
 MAX 0.2850 at Elm/GP 304/1  
 MIN -0.2849 at Elm/GP 303/1  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Fz  
 Peak Range(%): 35.00  
 Max 0.2850 at Node 157  
 Min -0.2849 at Node 156

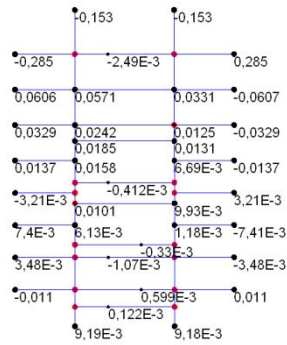
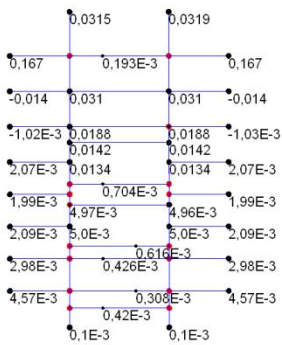


Figura A.2.1.585 – Abertura para os garfos - Perfis transversais – Diagrama Fz

Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: My  
 MAX 0.1673 at Elm/GP 304/11  
 MIN -0.1398E-01 at Elm/GP 302/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =My  
 Peak Range(%): 35.00  
 Max 0.1673 at Node 157  
 Min -0.1398E-01 at Node 154



Scale=1:46,7276  
 Zoom: 125,44  
 Eye: (0,0; 0,0; 1,0)  
 Linear/Dynamic Analysis  
 Loadcase: 11  
 Loadcase 11  
 Results File: 0  
 Entity: Stress  
 Diagram Component: Mz  
 MAX 0.3983E-01 at Elm/GP 297/1  
 MIN -0.4041E-01 at Elm/GP 297/11  
 DIAGRAM Scale: 1/0.1000  
 Peak/Value Component =Mz  
 Peak Range(%): 35.00  
 Max 0.3983E-01 at Node 363  
 Min -0.1844E-01 at Node 431

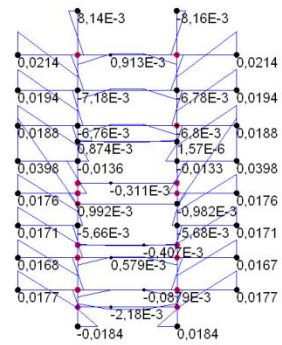


Figura A.2.1.586 – Abertura para os garfos - Perfis transversais – Diagrama My e Mz