

Curved panel, no edge warping, no axial bending, input data for STAGSUNIT listed in Table 12

PA= 1.00000E+01 PB= 0.00000E+00 PX= 0.00000E+00

step 16 fabrication system ,seff, layer 1, outer fiber

Fig.36 nonlinear effective stress - outer fiber; case=allrnrgs34803

Minimum value = 1.10212E+03, Maximum value = 6.76606E+04

Θ x -35.84

Θ y -13.14

Θ z 35.63

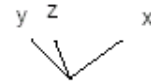


Fig. 36 STAGS prediction of outer fiber effective stress in the curved panel for which overall axial bending is NOT permitted. (IBCX0XL = 1 in the \*.STG file that, via execution of the PANDA2 processor, STAGSUNIT, generates the \*.bin and \*.inp input files for STAGS.) In-plane warping of the panel skin along all four edges of the STAGS model is prevented. This figure is analogous to Fig. 24. Prevention of overall axial bending in the post-buckling regime significantly reduces the maximum effective stress. Compare the maximum effective stress predicted by STAGS, 67660 psi, with that predicted by PANDA2, 56068 psi, as listed under Comment No. 7 in sub-sub-section 1.1.2.