

eqellipse.stiffened.opm4: meridional stress (psi) in isogrid “layer”

PA= 1.0: applied external pressure = PA x 460 = 460 psi

step 9, layer 1, sigma1 at inner fiber of the isogrid “layer”

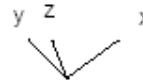
Equivalent isogrid-stiffened ellipsoidal shell with -mode 1 imperfection, Wimp=-0.2 inch

NOTE: Use a factor, 32.2, to get the maximum stress in isogrid member

Θ x -35.84

Θ y -13.14

Θ z 35.63



8.121E+00

Fig. 28 STAGS prediction of the **inner fiber meridional stress sigma1 (psi) in the isogrid “layer”** of the optimized **–mode 1 imperfect isogrid-stiffened** equivalent ellipsoidal shell subjected to the external design pressure, $p = 460$ psi. To obtain actual stress multiply the values in the key by 32.2 (isogrid spacing/thickness). Then compare with STFMXS in Table 44. Compare with the 10-degree “slice” model in Fig. 43.