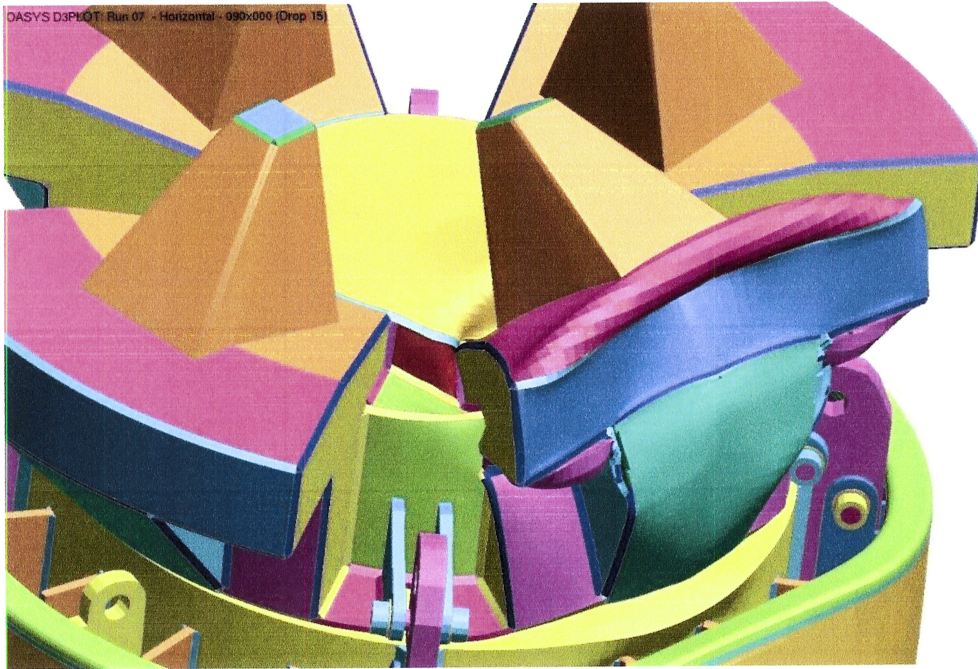


0.024275

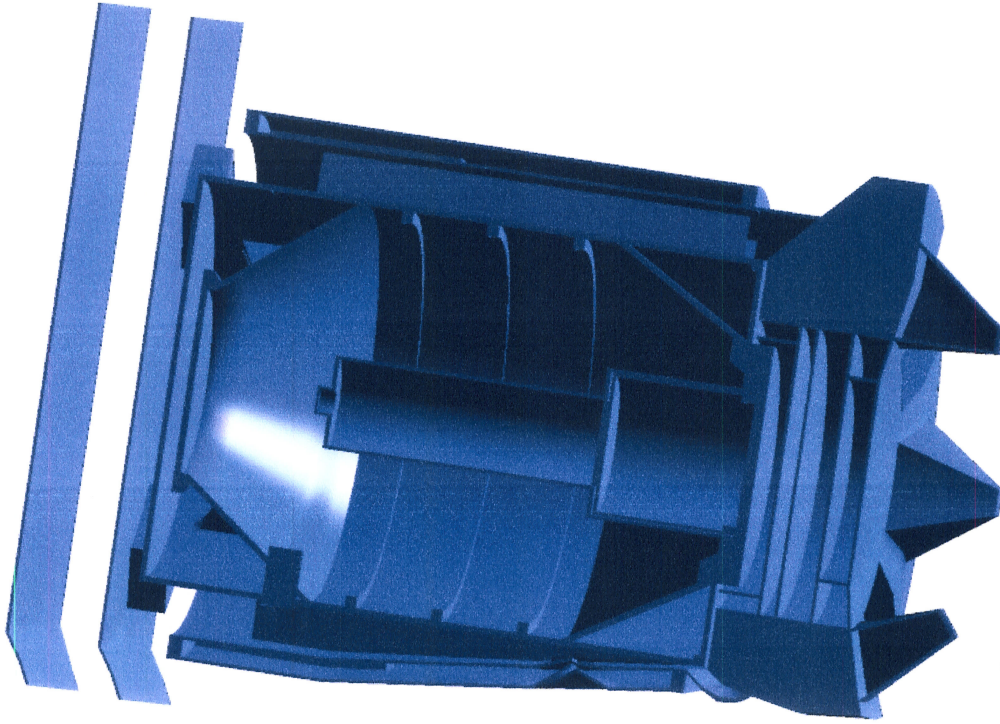
**Figure 21: Pallet after 9m side drop (modelled)**



0.024275

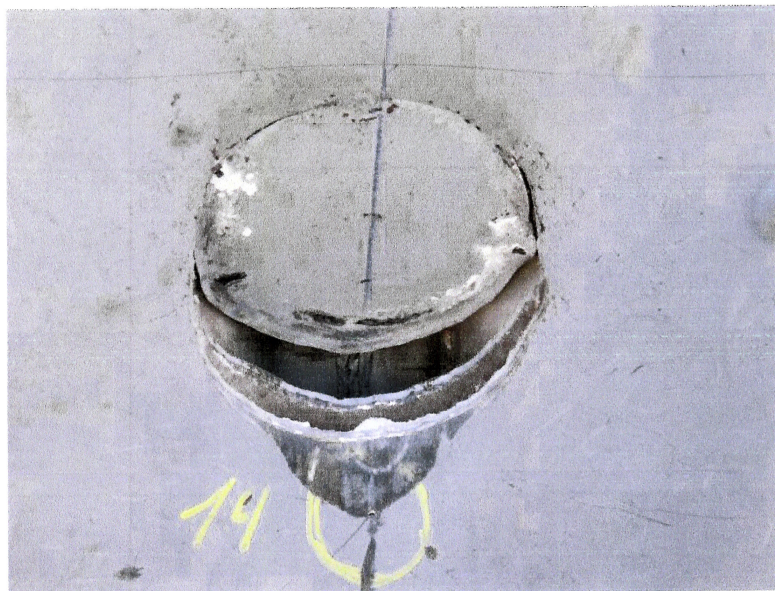
**Figure 22: Top shield after 9m side drop (modelled)**





**Figure 23: Thermal model (half section) showing 9m side drop damage**

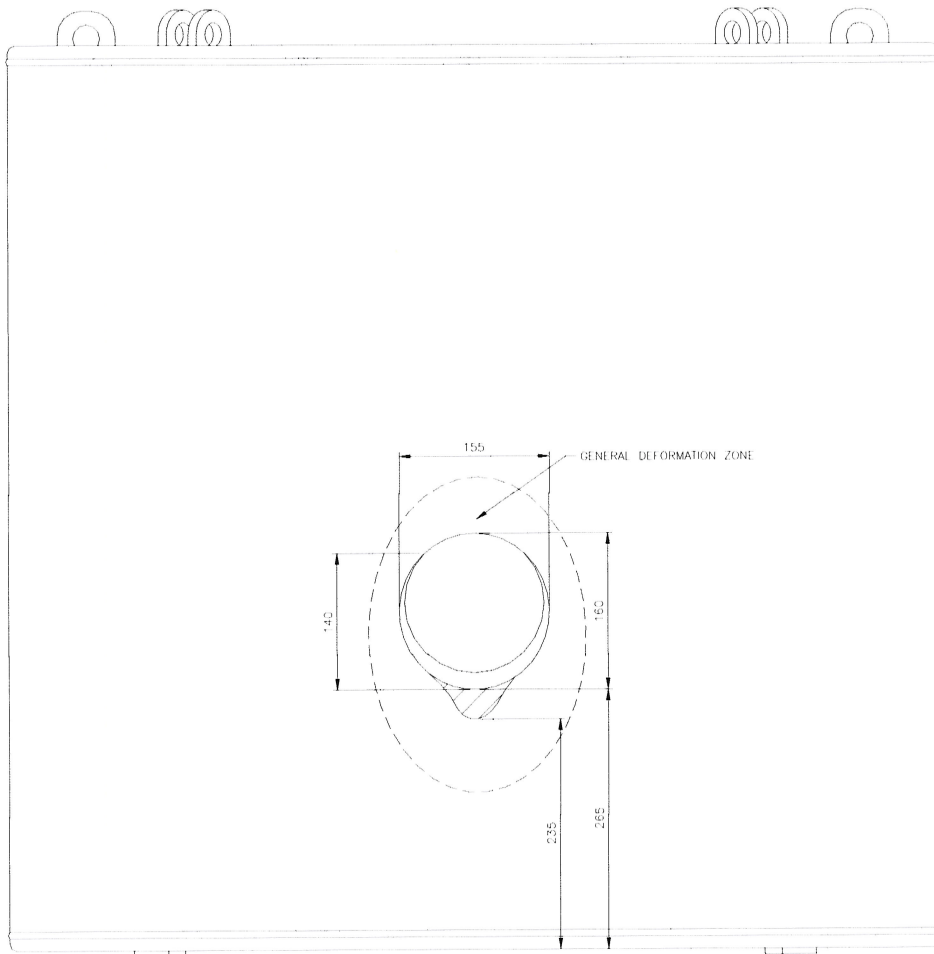
Punch damage (see Figs 24-27) consisted primarily of partial penetration of both jacket plates on a 150mm diameter (see RTR 248 & IR 0675). The new jacket design incorporates reinforcement in the area around the drain plug to prevent penetration so the damage was therefore modelled in an unreinforced area where it could still affect the drain plug, i.e. in the same fin channel and still aimed at the centre gravity but angled 25 degrees above the horizontal instead of 25 degrees below it. The actual deformation was modelled as realistically as possible (Fig 28).



**Figure 24: Partial penetration of jacket after 1m punch**



**Figure 25: Shearing of jacket outer and inner skins from angled side punch**



**Figure 26: Punch penetration**