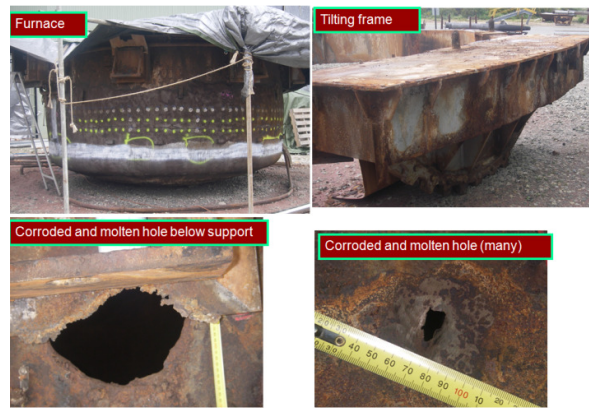


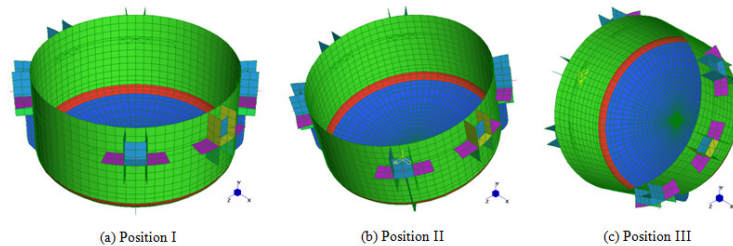
Structural assessment and repair engineering for Alumina furnace, WA

Work undertaken

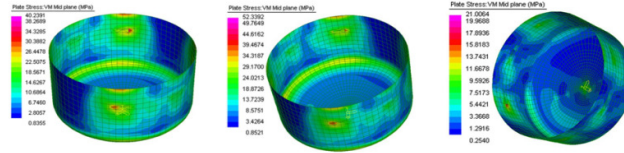
- ✚ Preliminary site inspection
- ✚ Detail site inspection and preliminary assessment
- ✚ Detail finite element analysis
- ✚ Detail buckling analysis
- ✚ Repair design
- ✚ Construction supervision



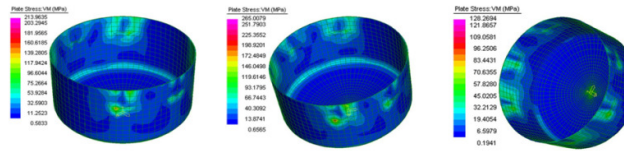
Damaged furnace and tiling frame



Finite element modelling for the tiling process

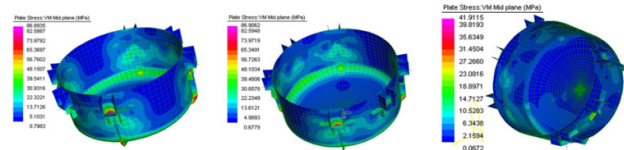


Axial stresses (v.m.)

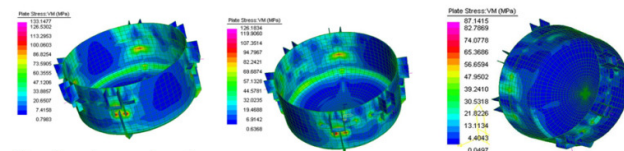


Bending stresses (v.m.)

Stress condition at current status before strengthening

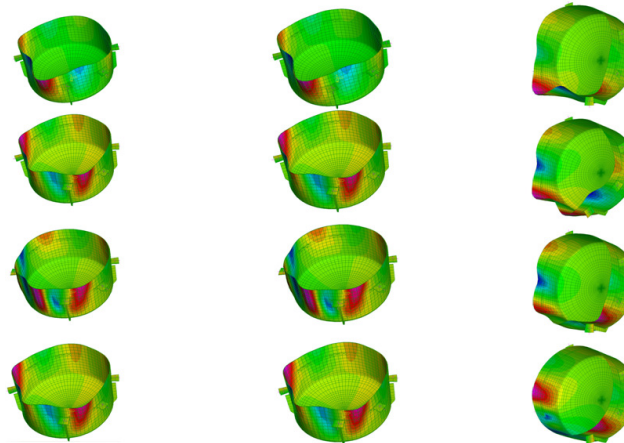


Axial stresses (v.m.)



Bending stresses (v.m.)

Stress condition with stiffening at the end of predicted service life



Buckling modes with stiffening at the end of predicted service life