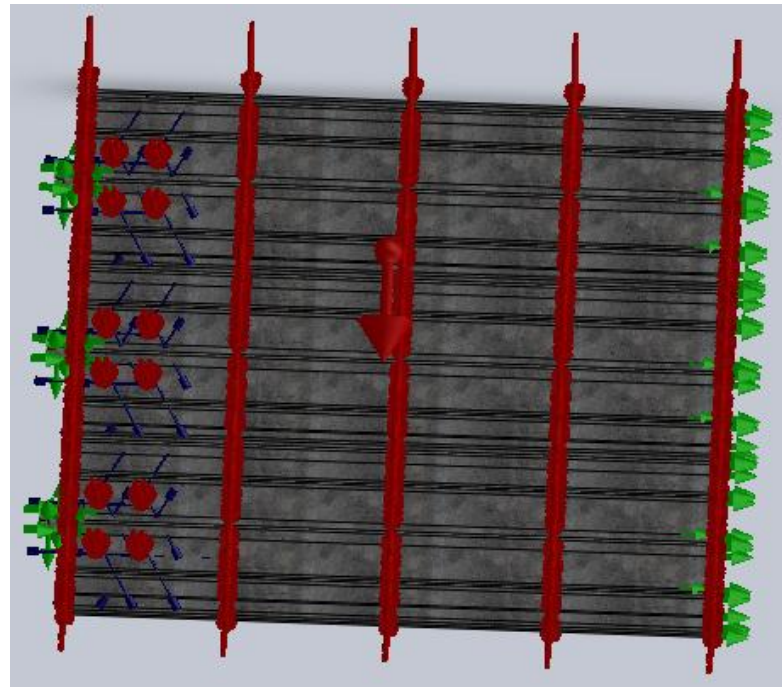


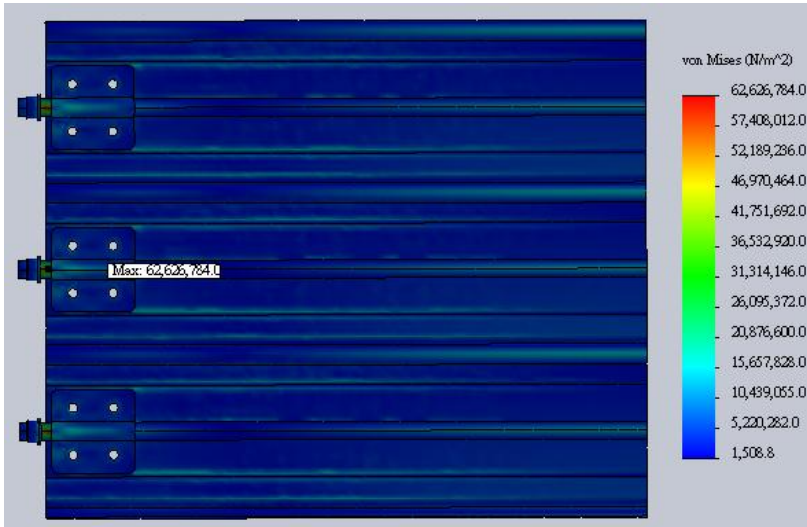
3葉片組結構強度與最大設計壓力

輸入與設定條件

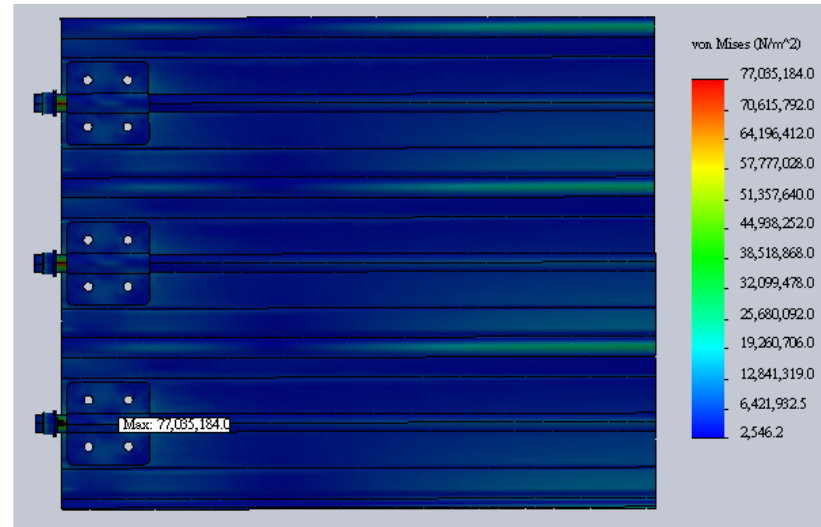
- 之前驗證結果顯示3葉片組與5葉片組的計算結果差異很小, 3葉片組可作為全體10葉片組的代表性模型.
- 設定條件如前例一葉片組.
- 增加壓力直至發生降伏應力:
2.25kPa, 3kPa, 3.5kPa.....



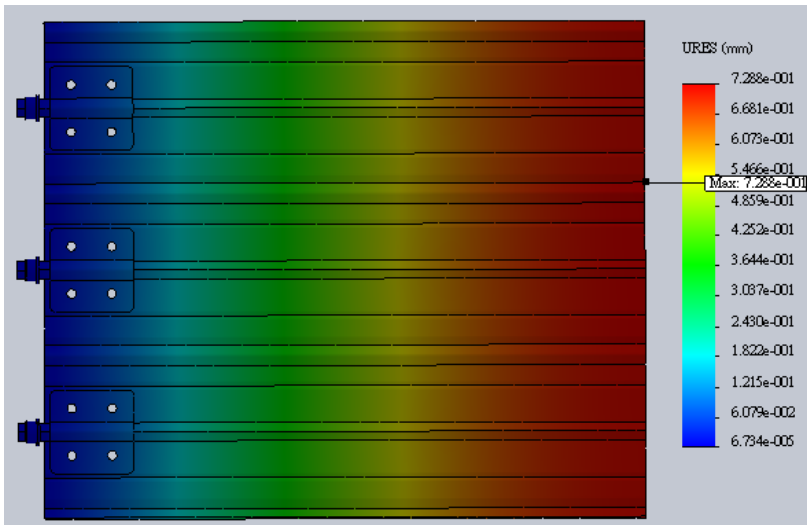
1.25kPa之應力與變形量分佈圖



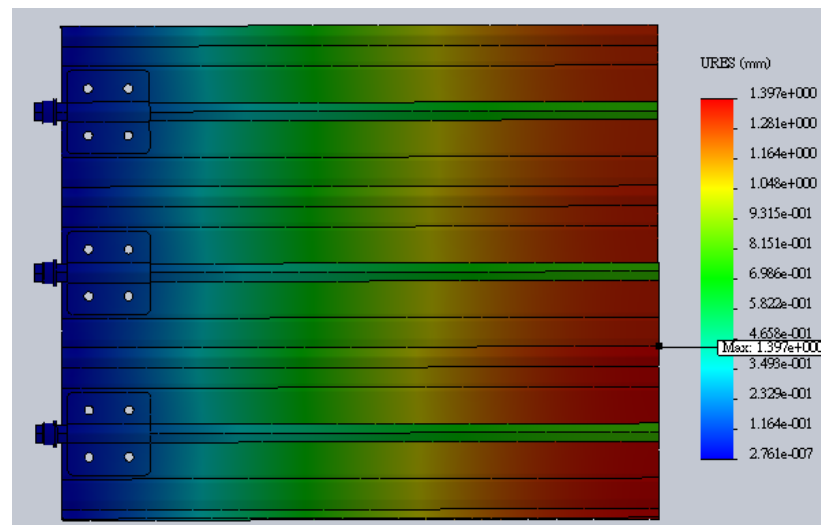
正面壓力之應力分佈



反面壓力之應力分佈



正面壓力之變形量分佈



反面壓力之變形量分佈

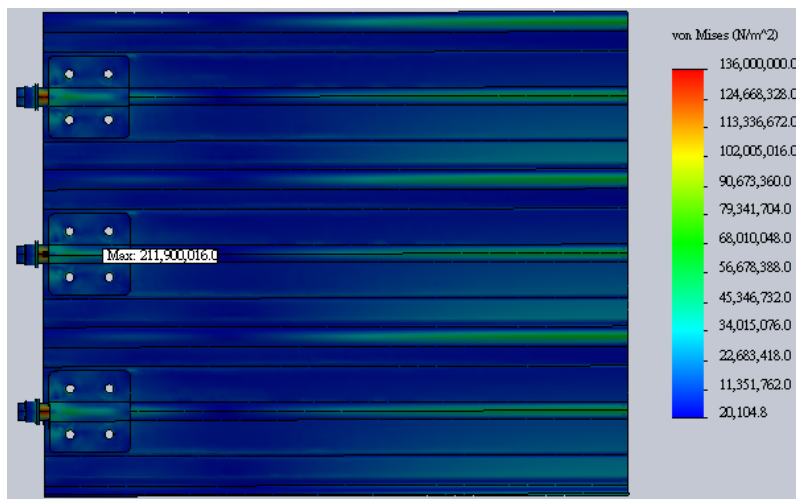
在各正面壓力下的應力分佈圖



壓力2.25kPa



壓力3kPa



壓力3.5kPa

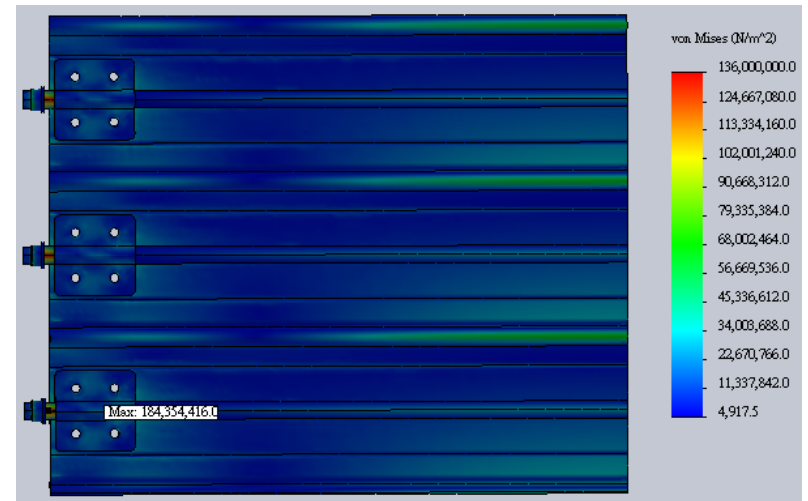


壓力4kPa

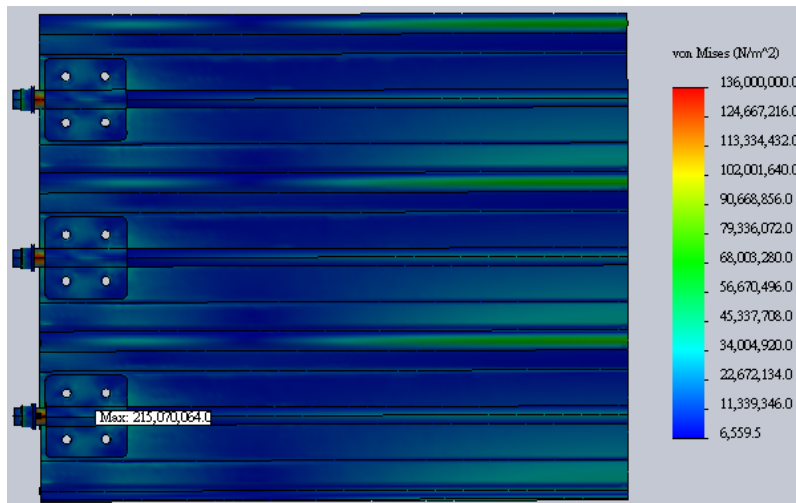
在各反面壓力下的應力分佈圖



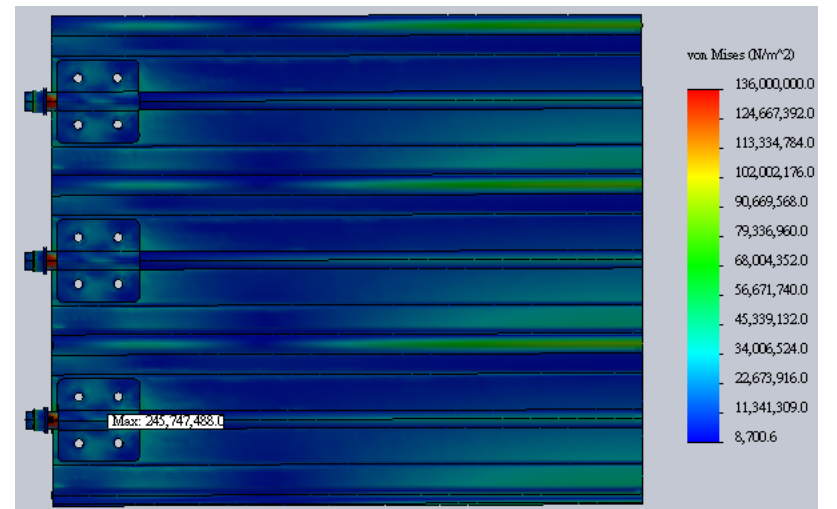
壓力2.25kPa



壓力3kPa

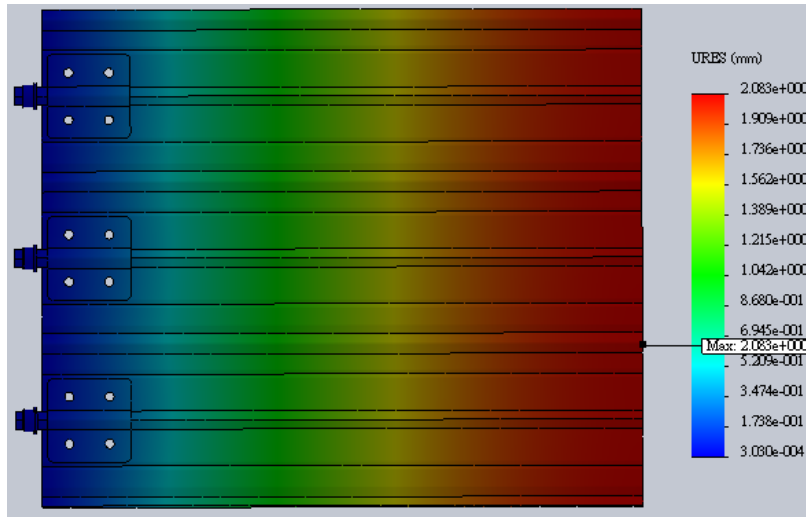


壓力3.5kPa

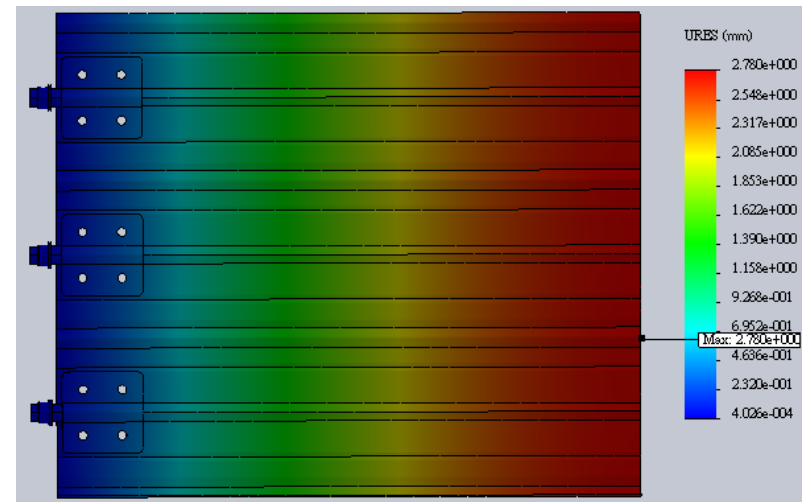


壓力4kPa

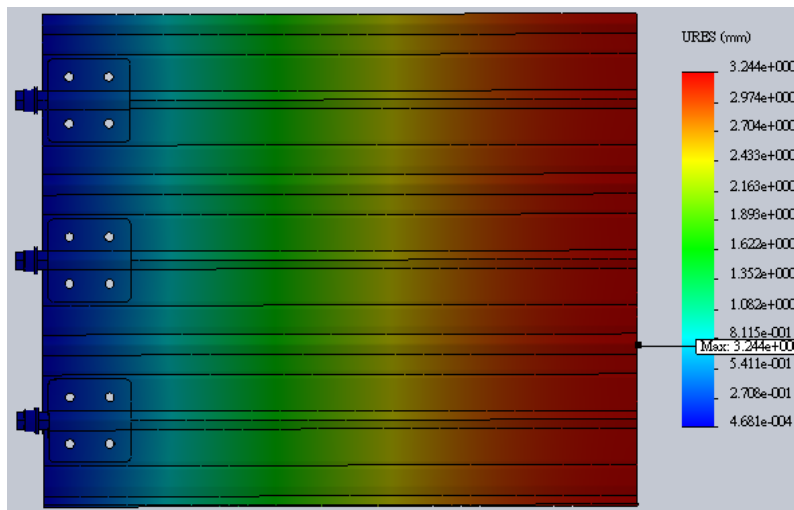
在各正面壓力下的變形量分佈圖



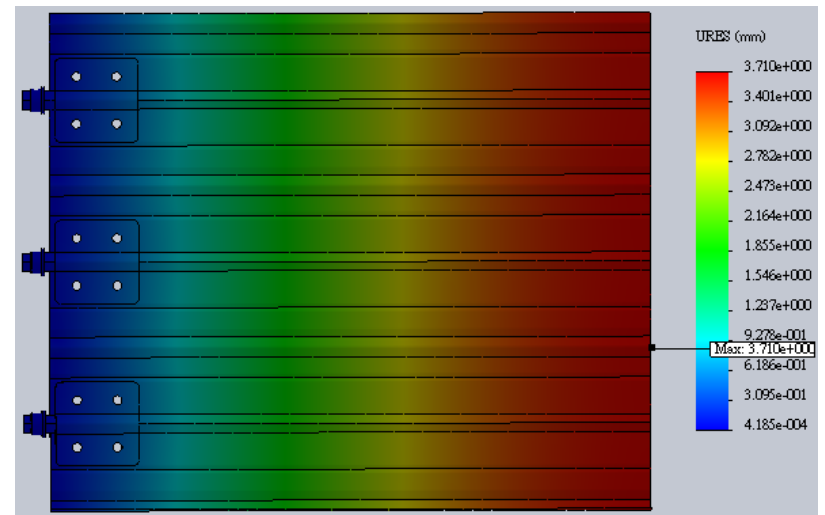
壓力2.25kPa



壓力3kPa

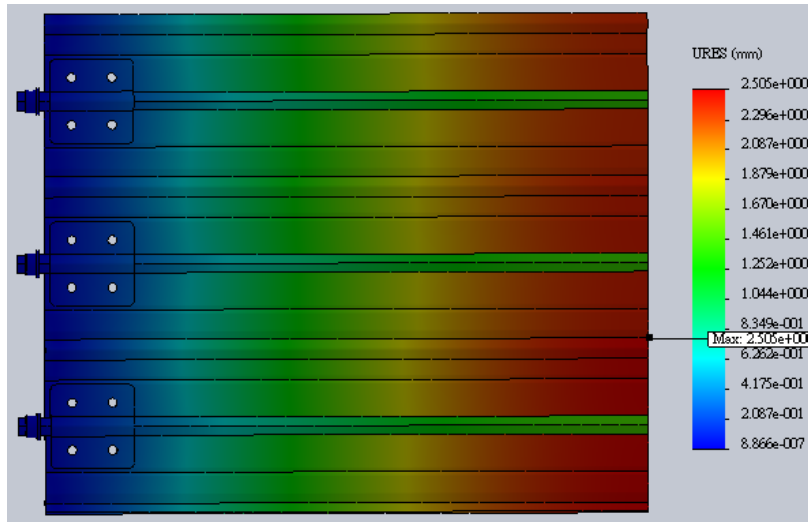


壓力3.5kPa

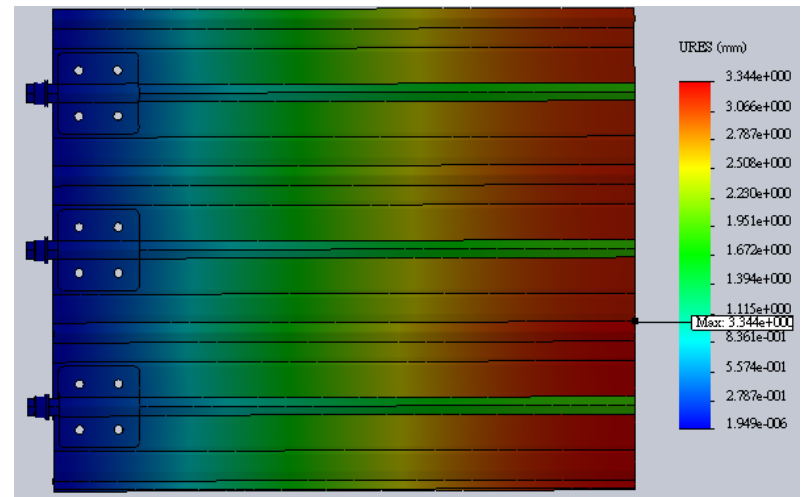


壓力4kPa

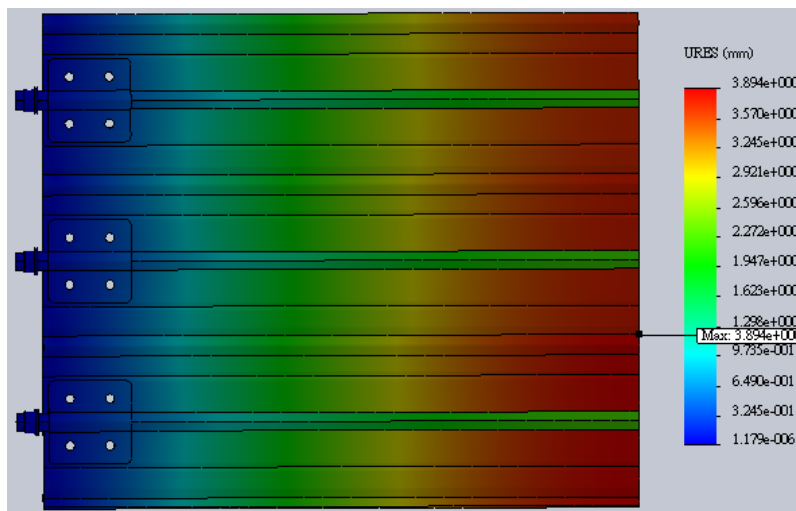
在各反面壓力下的變形量分佈圖



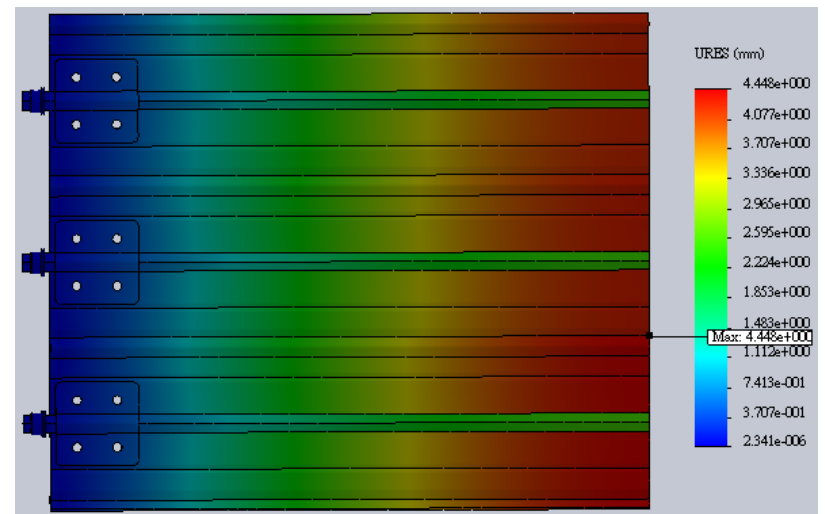
壓力2.25kPa



壓力3kPa



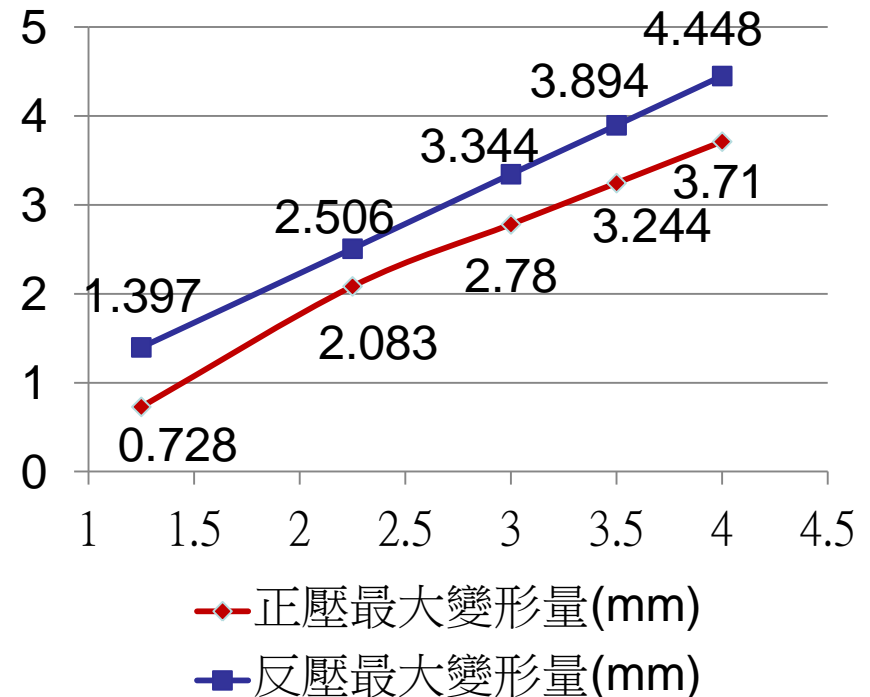
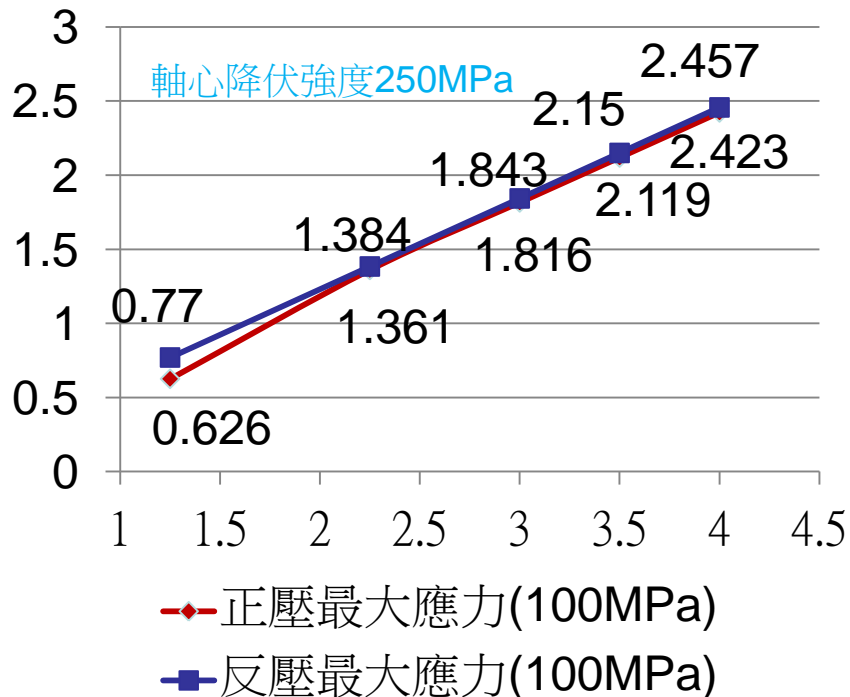
壓力3.5kPa



壓力4kPa

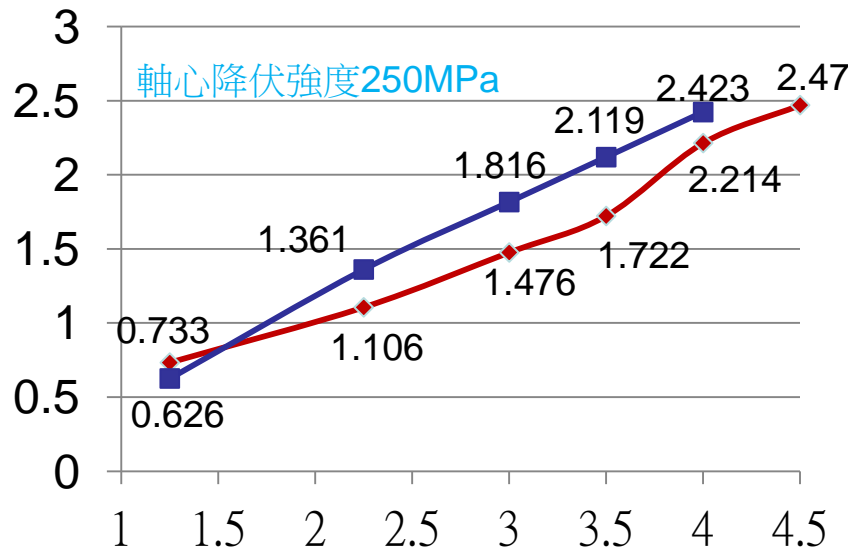
計算結果與最大壓力

- 最大應力與變形量隨壓力增加呈線性增大。
- 在1.25與2.25kPa壓力下3葉片組之葉片與軸心強度都OK，以軸心降伏強度為基準，可承受最大壓力約為4~4.5kPa。



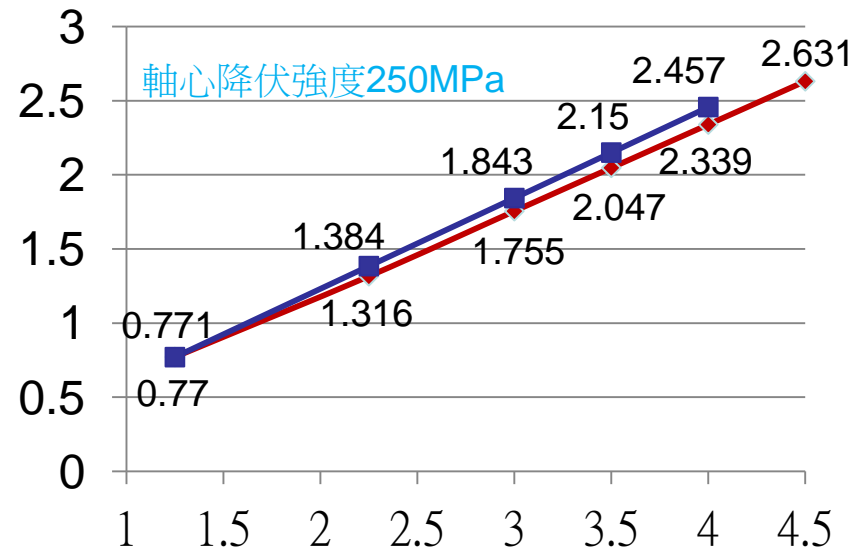
一葉片組與3葉片組之應力對照

- 3葉片組之應力值比一葉片組稍大且各壓力下之計算結果成正比, 反壓下的趨勢更是相似.
- 一葉片組加上補償差異值(Offset)可快速推測多葉片組的結果與趨勢, 並可作為3葉片組結果是否正確與可靠性的對照參考.



◆ 一葉片組最大應力(100MPa)
■ 3葉片組最大應力(100MPa)

正面壓力

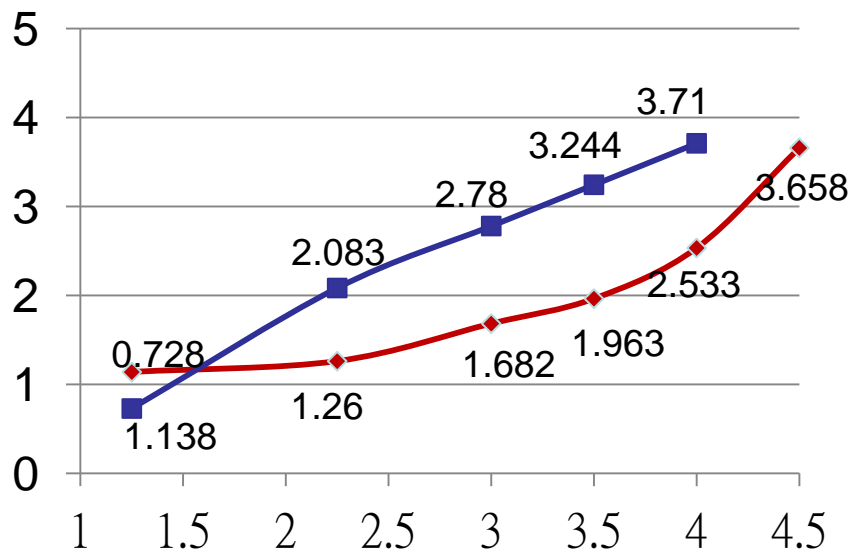


◆ 一葉片組最大應力(100MPa)
■ 3葉片組最大應力(100MPa)

反面壓力

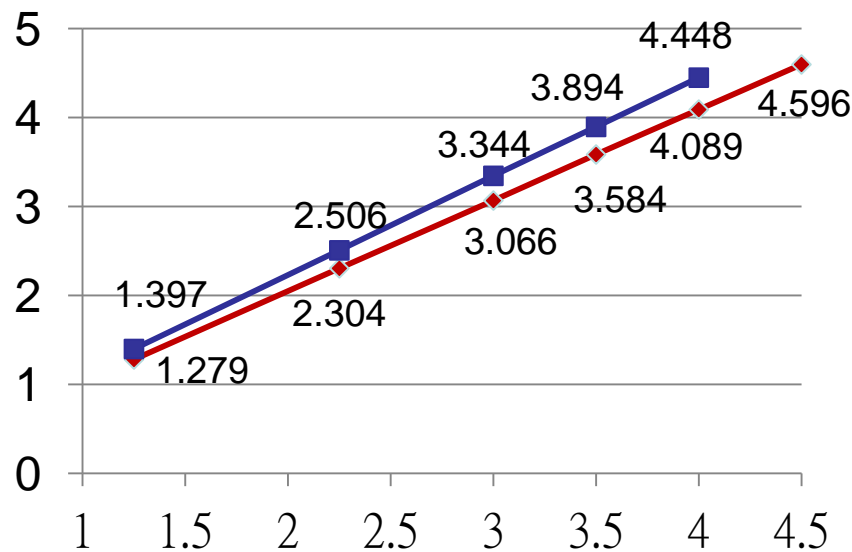
一葉片組與3葉片組之變形量對照

- 如同前頁的應力, 3葉片組之變形量比一葉片組有較大差異, 但各壓力下之計算結果仍為正比, 反壓下的趨勢也是相似.



◆ 一葉片組最大變形量(mm)
■ 3葉片組最大變形量(mm)

正面壓力



◆ 單一葉片最大變形量(mm)
■ 3葉片組最大變形量(mm)

反面壓力