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OF HAL - AUTOCLAVE

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Abstract : Finite Element Structural Analysis of HAL Autoclave System and Components was carried out for the original design under all possible critical load combinations. It was noted that the original design was unsafe from both deformation and stress points of view. Certain design modifications were suggested. Each modification was critically evaluated using simple 1- and 2-dimensional finite element analysis. These modifications were incorporated in the autoclave design and a full-scale finite element analysis was carried out for the modified autoclave system. It was found that the modified system is SAFE from both deformation and stress points of view.

MSC-XL is used for finite element modeling and for post-processing the results. MSC/NASTRAN is used for the finite element analysis. FEPACS is used for verification of the MSC/NASTRAN results where necessary.