

# STEAM SURFACE CONDENSER

A surface condenser is essential for condensation of the turbine exhaust steam and have important function to electric output efficiency of power plant. Malfunctions and troubles such as tube leakage, improper deaeration and flow induced vibration damage can adversely affect the plant operation and reduce the power output.

**ENERGYEN**'s design has been improved and updated continually by industry needs, analysis of field service problems and research and development. Using the modernized welding skill, engineering design, manufacturing and testing techniques, **ENERGYEN** produces surface condenser to assure the superior mechanical strength, maximum thermal efficiency and trouble-free operation.



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## CFD Analysis

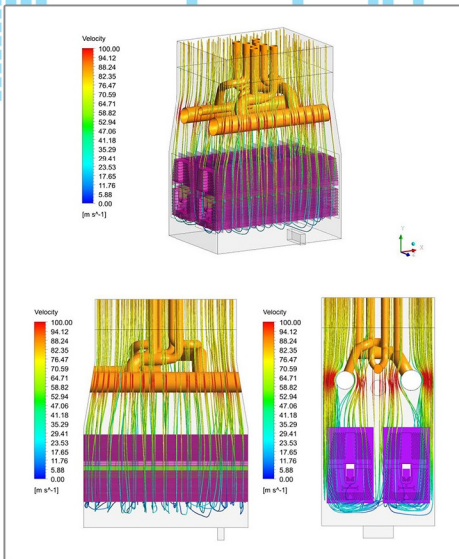
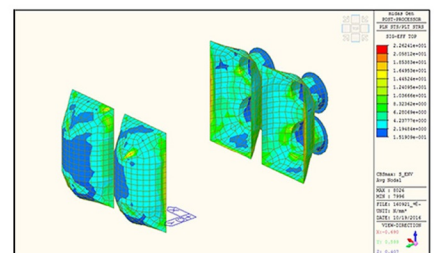
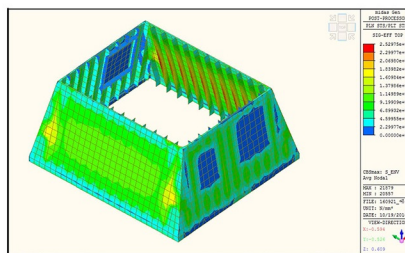
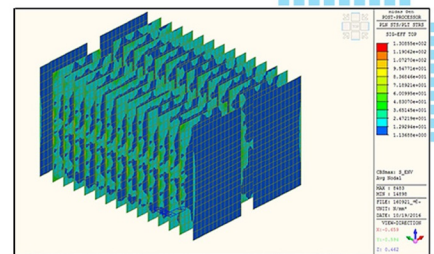
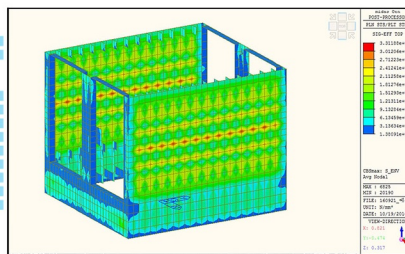


Figure 6.11 – Shell plate (Unit : N/mm<sup>2</sup>)

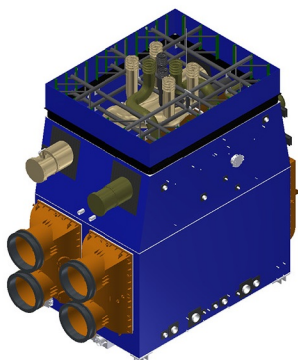
## Seismic Analysis



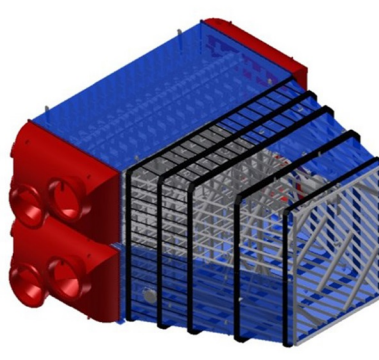
**ENERGYEN's** steam surface condenser provides the significant performance features ;

- uniform steam distribution over tube bundle
- minimizing the pressure drop by providing steam lane and by reducing obstruction in steam path of high velocity
- optimizing the condensate reheating and deaeration
- effective removal of non-condensable gases
- suitable protection for high energy fluid
- minimizing the tube vibration damage and tube leakage
- easy field assembly and maintenance

### Vertical Type



### Axial Type



### Circular Type

