

Energomash (UK) Limited

Power Generation

Russia



ЭНЕРГОМАШ

www.energomash.ru



ANSYS® ICEM CFD™

Overview

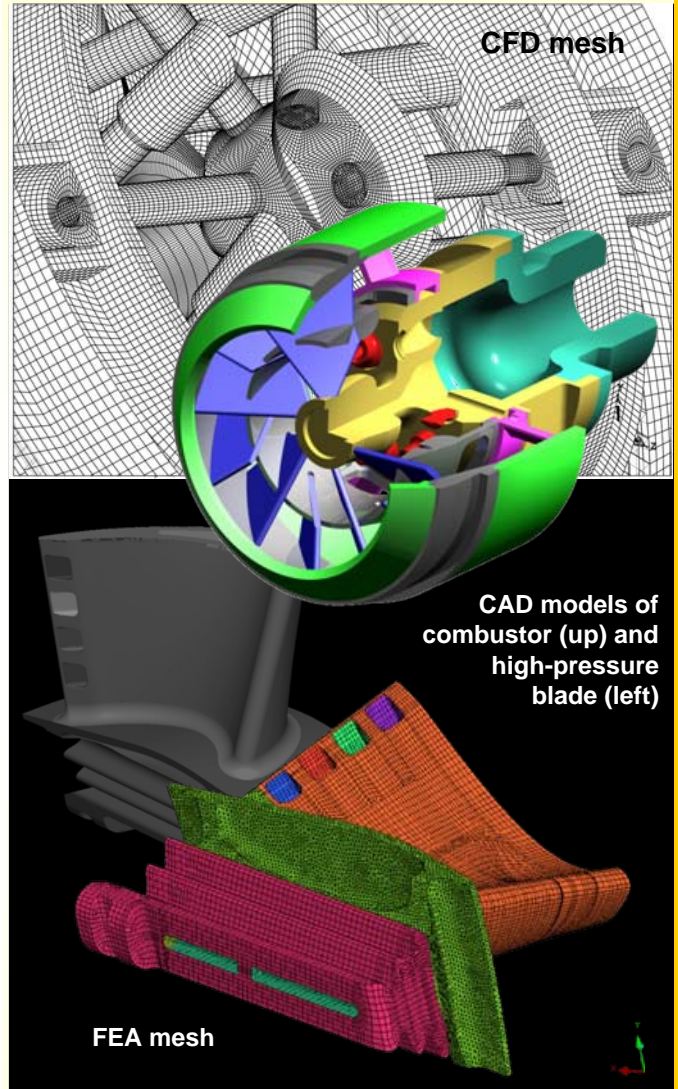
Energomash Group Enterprises is one of the largest manufacturers of power equipment in the Russia. In addition to developing and manufacturing equipment for various types of power stations and pumps, Energomash Group Enterprises is engaged in operating their own gas turbine plant and developing electric and thermal energy.

Testimonial

“Adequacy and accuracy of results of numerical experiments, in many respects, is defined by the quality of the mesh structure, which describes the computing space of the investigated object. Therefore, the time needed to construct such understandable mesh structure frequently surpass all other stages of numerical research.

“Application of ANSYS ICEM CFD software has allowed us to considerably improve the quality of mesh structures while reducing construction time due to good integration with CAD systems and parametrical rebuilding opportunities — which is especially important in researching complex objects such as gas turbine plants, including combustion chambers, compressors, regenerators and other units.”

Dmitry Borisov, Ph. D
Chief of CAD/CAM/CAE/PLM Division



Challenge

Requirements for mesh generation:

- Construct qualitative mesh structures that can be adapted for specificity of investigated process.
- Integrate with CAD system.
- Reduce time required for mesh structure construction for typical problems.

Solution

Use of ANSYS ICEM CFD Hexa:

- To apply completely hexahedral structures, adapted in actual areas
- To use direct interfaces with CAD system
- To use the same block structures for geometrically different but topologically close models

Benefits

- Application of completely hexahedral mesh structures has allowed Energomash to raise the quality of elements, reduce developed model dimensions and improve convergence of the solutions.
- Use of direct interfaces has improved accuracy and cut time expenses by transfer of geometrical models.
- For typical problems, the time needed to create mesh structures for typical problems has been considerably decreased.