SOFTWARE PACKAGE FOR CALCULATION AND DESIGN OF FLOW PARTS OF POWER PLANTS

Areas of Application

IPMFlow software package is to be used for designing flow parts of steam, gas, and hydraulic power plants. It can be interesting for enterprises of power engineering, aviation gas turbine building, integrated gas refineries and transportation systems and so on

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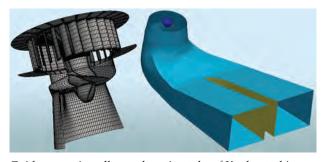
Interface of IPMFlow software package

Specification

3D viscous flow modeling is based on numerical integration of Reynolds' equations using Godunov's high-accuracy implicit quasimonotonic schemes. The turbulent effects are taken into account using Menter's two-parameter turbulence model. The software package enables to design efficient blade profiles using computational experiment without involving physical tests

Advantages

The software package enables developing highly efficient flow parts and reducing design time. It surpasses the existing analogs in Ukraine in terms of all basic characteristics



Guide vanes, impeller, and suction tube of Kaplan turbine

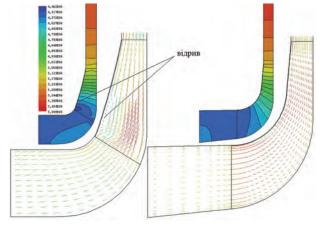
Stage of Development. Suggestions for Commercialization

IRL8, TRL4

Design and computations of flow parts are provided, upon request

IPR Protection

IPR1, IPR2



Visualization of static pressure and speed vectors in flow parts of compressor: prototype model and new compressor

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