PHOENICS® for Rhino3D®
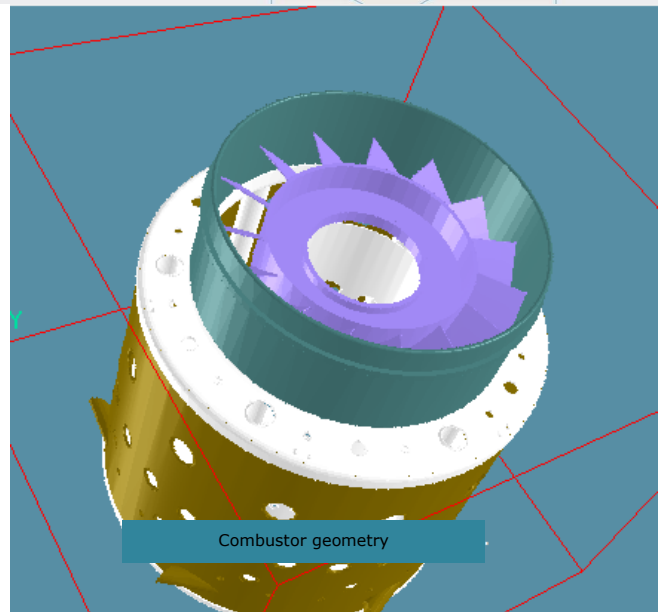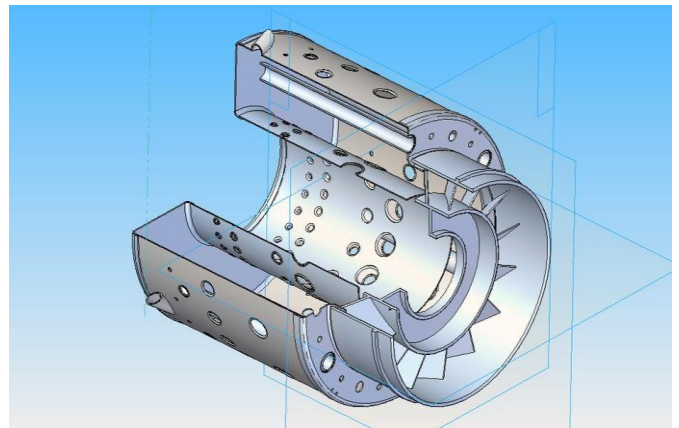## CHAM Product Update – June 2016
RhinoCFD

The "Earth" solver of CHAM's PHOENICS CFD software already forms the CFD *engine* of several third party products. Now, both the solver and its input menu structure have been transposed to operate within the environment of both specialist-application and multi-function third party CAD products.

One such product is Rhino3D - a highly-successful 3D modelling tool produced by the McNeel Corporation. Rhino3D is used worldwide and both supplied and supported in the UK via Simply Rhino www.simplyrhino.co.uk.

Rhino3D embodies a 3D working environment with tools allowing its users to create CAD models of any shape, complexity or size and import third party CAD data for a range of file types. The working environment for Rhino3d is relatively easy to learn and is supported by training solutions designed to shorten the learning curve. Rhino3D also supports a range of plug-ins tailored for specialist applications.

CHAM has added to the range of popular plug-ins already supported by announcing a low-cost commercial variant of its powerful general-purpose CFD package, PHOENICS, simply called *RhinoCFD*. The product will soon be available for download from the www.Food4rhino.com website or via SimplyRhino, www.simplyrhino.co.uk.

Combustor geometry

Combustor geometry displayed in Rhino3D and its PHOENICS-VR RhinoCFD Plug-In

PHOENICS features activated in *RhinoCFD*:-

- PHOENICS-VR pre-processor (standard GUI);
- PHOENICS-2015 structured sequential CFD solver;
- VTK file handling and unstructured sequential CFD solver;
- PARSOL (Partial Solid) cut-cell geometry detection;
- Standard turbulence model options;
- DATMaker CAD and file conversion feature;
- Internet link to POLIS (PHOENICS Online Information System);
- VR output to Rhino display environment and PARAView®.

PHOENICS features de-activated in *RhinoCFD*:-

- Two-phase & multi-phase options;
- Multi-core & parallel-processing operation;
- All SPP (special-purpose product) variants (eg CVD, ESTER, FLAIR, HOTBOX, etc);
- Body-fitted meshes;
- PARSOL extensions (S-PARSOL & X-PARSOL);
- Non-standard turbulence models (eg MFM (Multi-Fluid-Model));
- Inbuilt POLIS (PHOENICS Online Information System);
- PHOENICS-VR post-processor.

In essence, *RhinoCFD* comprises the standard PHOENICS user interface with its CFD solver only limited to single-phase, sequential operation, running under Windows – yet its price is heavily-reduced from its mainstream counterpart. Activation of special-purpose, applications-specific, variants is subject to additional cost. *RhinoCFD* offers annual or perpetual licensing terms with price reductions for academic institutions.

RhinoCFD is sold and supported in the United Kingdom via Simply Rhino Limited www.simplyrhino.co.uk UK Rhino Sales, Training & Support – Telephone: +44(0)20 8498 9900.

For further information contact Sales@cham.co.uk.

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