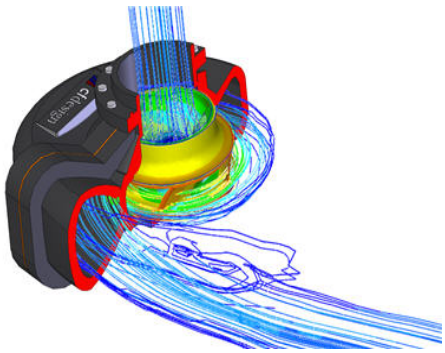
News

Blue Ridge is Finalist in '06 Pump Industry Awards

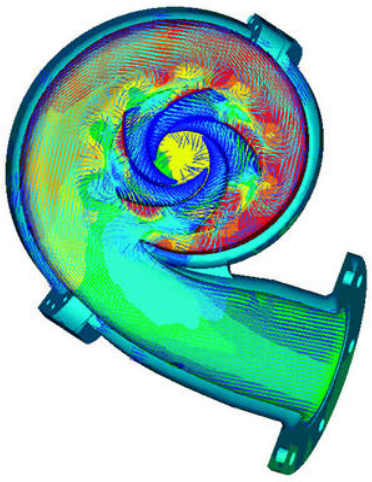
First CFD Software Company to Receive Nomination

Blue Ridge Numerics, the world's fastest growing CFD software company, has been named as a finalist in the Technical Innovator of the Year category of the Pump Industry Awards 2006. Blue Ridge Numerics has been nominated for its pump design optimization software, CFdesign®.



CFdesign is the first CFD application ever to be nominated for a Pump Industry Award. "The Pump Industry Awards were established to promote best practice in key areas of pump manufacturing and acknowledge the companies and innovations that are driving this dynamic industry forward," comments Andrew Castle, chairman of the judging panel.
Developed specifically for engineers working with Autodesk Inventor, CATIA, Pro/ENGINEER, SolidWorks and other leading CAD systems, CFdesign is a powerful upfront CFD application that turns a standard CAD workstation into a fully interactive flow bench.

The benefit of using CFdesign is that companies gain critical insight into pump performance early in the design process, cutting development time and dramatically reducing the amount of physical prototyping and testing required. The engineering information made available includes transient details of a whole machine's response to fluid flow on any time scale, full performance curves, impeller radial loading, analysis of single blade passage and of intermeshing gear parts: all things that are almost impossible to determine from a lab test.



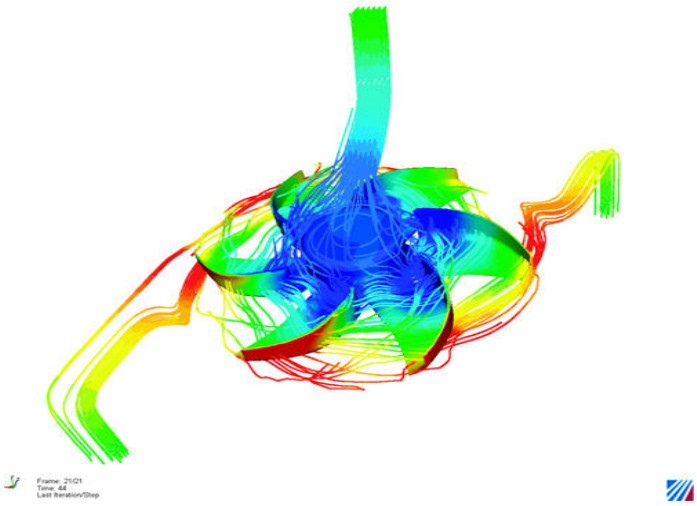
Cross-section view in CFdesign shows flow vectors, revealing excessive separation at cutwater.

CFdesign at Layne Bowler Pump Company

Layne Bowler is a manufacturer and distributor of vertical turbine type line shaft and submersible pumps. The company uses CFdesign as a vital link in its integrated design, engineering and manufacturing process. "The software enables us to shorten design and test periods and to save money on test and production costs," says Onur Ozgen, R&D engineer at Layne Bowler. "I would say every pump company should look at CFdesign as a must in their processes. I have worked with other CFD applications but I really believe CFdesign allows the designer to save lots of time. Features such as MCAD integration and results visualization make life easier for a design engineer."

Commenting on this latest achievement Blue Ridge Numerics president Ed Williams says: "Quite simply CFdesign is accelerating the rate of innovation within the pump industry. CFdesign makes it possible for engineers to see the total pump performance picture before building any physical prototypes. By enabling them to see what they have been missing on the flow bench they are making more innovative pumps based on more complete engineering data."

Case in Point
Apump company with no previous CFD experience recently used CFdesign to generate more than 70 design permutations within a very compressed schedule. The result was a nearly two-fold performance gain and the company's first new product to compete in the high-efficiency pump market.



Fluid and/or massed particulate within CFdesign flow simulation points to areas of stagnation/erosion.

CFdesign can help optimize and economize any of the following pump types: axial flow, bladder, booster, cantilever, centrifugal, condensate, diaphragm, gear, grinder, hydraulic, injection, jet, lobe, peristaltic, piston, positive displacement, rotary and sliding vane, screw, single and double volute, turbine and vacuum.

Companies using CFdesign to aide pump design include: Argal, Askoll, Borg-Warner, Bristol Compressors, Compare, Copeland, DeVilbis Air Power, Ebara, Factair, Fairbanks Morse, Finish Thompson, Floway, Gardner Denver, Goodrich Pumps, IMO, Ingersoll Rand, ITT Goulds, ITT Flygt, IronPump, Lau Industries, Layne Bowler, Liberty, National Oilwell, Pentair, Pioneer, Tempo, Wabco, Waterous, Weir Floway and York.

Vote for Pump Industry Award 2006 Technical Innovation
To view other award nominees and cast a vote for CFdesign visit:
www.pumpindustryawards.com/vote.php