Computational Fluid Dynamics

EASL are experts at providing a wide range of niche structural integrity analysis. Whether it's assessing materials, structures or fluid, we can offer effective and clear information in a cost effective and timely manner. Utilising PHOENICS, FLUENT and more, EASL can deliver a highly trained team of scientists and engineers to provide clear and trustworthy computational fluid dynamic analysis.

What is CFD?

Computational Fluid Dynamics is a numerical method used to solve complex fluid flow and heat transfer problems. A complex flow problem is solved by applying appropriate boundary conditions to a discretized flow field and solving a set of coupled equations to approximate the properties of the fluid.

Fluid properties are evaluated at a finite number of points within the flow field and these properties can be pressure, temperature, velocity, density and turbulence properties.

Using CFD simulation EASL can provide our clients with a range of benefits including:

- Identifying potential problems that affect the safety and reliability of engineering structures, systems or components.
- The ability to predict the performance of an engineering design under a variety of simulated loading conditions.
- Providing reliable solutions for problems where experiments are otherwise complex or potentially unsafe.
- Delivering cost effective solutions to complex engineering problems with low turnaround times.

EASL's Computational Fluid Dynamics

EASL offers professional and high quality CFD solutions, enabling our clients to improve the design and performance of their structures, systems or components. With our extensive knowledge of CFD analysis we help our clients optimise and develop safe, cost effective and reliable structures, systems or components.

EASL engineers have PhDs or Masters Degrees in various science and engineering fields, and collectively have vast experience in different engineering disciplines. Taking a solution driven approach, we consider the overall needs of our clients to give a broad selection of specialist analysis.

We can deliver high quality, clear analysis on:

- Industrial Fluid Dynamics
- Heat Transfer Analysis
- Fluid-Structure Interaction
- Multi-phase Flow Analysis
- Aerodynamics

We can offer our clients CFD solutions to complex fluid and thermal problems from early stages of design to the finished product. This enables our clients to better understand their product designs or extend the safe lifetime operation of their products.

Our CFD Services

Computation Fluid Dynamics provides an excellent method to ascertain engineering integrity analysis in a way that is drastically quicker and more cost effective than alternate methods. Through computerization, EASL's team of highly trained experts can provide the perfect solution to assessing a multitude of complex flow problems.

If you have any more questions about CFD, or you'd like to see how we can provide our expertise to your fluid dynamics problems, do not hesitate to contact us below.

Related Services

- Pipe Stress Analysis
- Computational Fluid Dynamics (CFD)
- Creep Rupture