

adapted for industrial use. It is also able to focus on a range of other measurement techniques.

### **Computational Fluid Dynamics (CFD)**

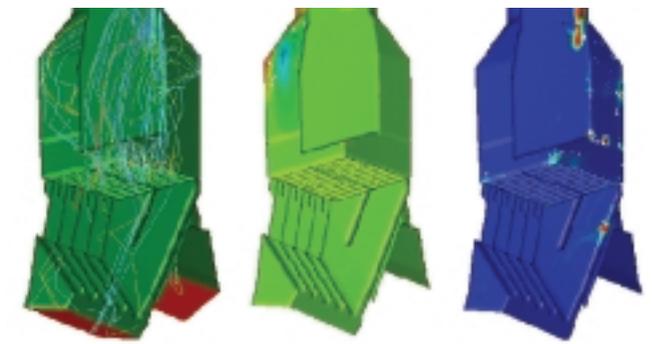
One of GAIM's major tools is Computational Fluid Dynamics (CFD). CFD programmes are similar to finite element programmes but for fluid systems. The programmes allow simulation of fluid field variables such as pressures, velocities and temperatures. The programme is also able to undertake particle tracking and chemical reactions (such as combustion). CFD has been used to identify the optimum positions for their VARB devices in pipe networks. CFD is used in a wide range of industries and its based equations have lots of good correlation to experimental and empirical data.

One of GAIM's major areas of interest is instrumentation and measurement. GAIM is particularly interested in developing new and more accurate ways of measuring properties and values within harsh or difficult environments. GAIM will be happy to investigate your

measurement problems and work on solutions to these problems.

The research done by GAIM for their customers has lead to the installation of several tailor made solutions. Of particular note are the VARB devices that are designed and

positioned based on investigation by GAIM engineers. Each scenario is thoroughly investigated and solutions tested experimentally and computationally. This approach has been found to be incredibly successful.



### **The Greenbank Group UK**

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# Greenbank Terotech - Systems Division

"The implementation and deployment of specialised products for optimising system performance"



## GAIM - CFD Problem Solving

Computerised & Rig based problem solving techniques

GAIM is the R&D division of The Greenbank Group UK. It focuses on the development of new products. It also works on a consultation basis with other divisions of The Greenbank Group as to the best use of its products and to investigate new opportunities for products.

GAIM's final area is that of problem solving, it is possible for GAIM to take a problem that you have and investigate it and suggest solutions. Whilst the main focus is that of pneumatic conveying, in the past GAIM has dealt with a range of problems outside of pneumatic conveying, such as combustion, de-dusting, heat exchangers and erosion problems.

GAIM's relationship with the University of Nottingham allows it to perform detailed experiments and carry out experimental research on certain scenarios. GAIM has access to a 1/3rd scale and a 1/10th scale pneumatic conveying rig. It also has other rigs developed for other power station technologies. GAIM specialises in laser-based measurement such as Particle Image Velocimetry and Laser Sheet Visualisation, both techniques are being

