



**FOR IMMEDIATE RELEASE – 24 July 2008**

## **Computer Aided Modelling Enables Pump Company's Success**

**Suffolk company Amarith has much to celebrate: company revenue has grown 500% in 5 years; and it has been profitable from year two onwards. Amarith is respected worldwide for its ability to deliver sophisticated heavy-duty pumping equipment to the oil and chemical industries. Much of its success it attributes to the application of technology, in particular a 3D modelling technology called SolidWorks, supplied by Histon based Innova Systems.**

Amarinth pumps can cost over £100,000 each because of the high grade materials used in their construction and the requirement to be manufactured to stringent safety critical standards similar to those seen in the aviation industry. Amarith has customers all around the world including AMEC, BP and Shell, and has recently shipped a pump into China for the first time.

"The materials we use and the process of building each pump can be extremely costly," said Oliver Briginshaw, Managing Director of Amarith. "With SolidWorks we are able to create a 3D virtual model of each pump design to ensure everything fits and that everything will work prior to production. In addition to this, the SolidWorks tools generate the files, the drawings and reports that we need for both manufacture and safety certification and have also enabled us to create more complex and more refined parts, enabling us to produce more efficient, more reliable and better performing pumps."

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SolidWorks's company Innova Systems has also played an important role in Amarinth's adoption of this technology. Innova has provided extensive training, technical support and consultancy, ensuring that Amarinth's engineers can exploit the software to the full. Innova has also supplied related software called Cosmos that enables engineers to analyse the physical properties of a design, such as weight and strength.

"With the massive hikes in metal prices such as nickel, the Cosmos tool has been a very important addition to the SolidWorks package," said Oliver. "Cosmos enables us to analyse the materials of design and has allowed us to reduce the metal content of some pumps without compromising on the performance or safety. It also helps us to understand how much a pump will weigh prior to production. This is an important issue when the pump is destined for an oil rig at sea."

Although Amarinth is essentially a mechanical engineering led company, it has no doubts that it is the application of the latest computer technology that has put it ahead of the competition. This provides its customers with sophisticated on-line ordering and tracking systems and Amarinth is now aiming to create a link from its web page to the SolidWorks database so that customers can view 3D models of pumps and parts.

"Once we started to understand the business advantage that SolidWorks provided us, we decided to invest more heavily in this technology," said Oliver. "Each year, we take on an engineering student on a graduate scheme and we get them started on SolidWorks training from day one. We have now built a database of over 20,000 pump components, reducing our response time for a drawing with a new enquiry on a vertical pump from 5 days to 3 hours and with a considerable improvement in design accuracy and consistency. In the oil industry, time really is money - so being able to build and deliver pumps faster than the competition puts us in a stronger position to command a good price and build a stronger business."

The team at Innova Systems have been experts in 3D modelling technology for over 15 years and work with engineering and technology companies across the UK. One of Innova's strengths is in the training of engineers in SolidWorks and Cosmos. Innova runs courses at its office near Cambridge and on-site for many of its clients.

"We've run several on-site training courses at Amarith," said Mark Bradford, Managing Director of Innova Systems. "The truth is that SolidWorks is very easy to use and is very intuitive, however, as the work gets more complex, then some specialist training can be required. Amarith is constantly stretching the capabilities of the technology, so we have been working them to introduce new aspects of the technology such as Cosmos."

SolidWorks is so much a part of Amarith that the company's future strategy involves further SolidWorks investment, with the possibility of being able to provide animated 3D models that will help maintenance engineers understand how to disassemble parts and how each pump works. It also wants to be able to provide 3D models for customers to include in their own designs, so that the customer can accurately model a complete installation.

"We have really valued Innova's support," said Oliver. "They have always been very responsive and have always invested the time to understand our issues and to help us achieve our goals. Their engineers also have real-world engineering experience, this has been an important factor in helping them to understand what we have been trying to achieve."

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## NOTES TO EDITORS:

Founded in 2002, Amarith has harnessed the skills, creativity and passion of people who have worked in the pump industry for many years. Amarith delivers world-leading expertise in the design, application and manufacture of centrifugal pumps and associated equipment to ISO, ANSI & API standards, primarily for the industrial, chemical & petrochemical markets. Their portfolio includes:

- **Pumps:** Horizontal and vertical API 610 pumps, chemical and industrial pumps, many of which are interchangeable with the Girdlestone pump ranges, eliminating the need for expensive modifications when replacements are required.
- **Pressure Vessels:** Protect System Plan 52 and 53A and 53B sealant systems with inbuilt condition monitoring for pumps and mixers that are suitable for Safe area up to Zone I.
- **Spares & Service:** High quality, fast lead-time re-engineered spare parts to improve performance and extend pump life, including many which are directly interchangeable with the Girdlestone pump ranges.
- **Packages & Modules:** Condensate Recovery Units manufactured for Spirax Sarco incorporating the innovative Ci-Nergy intelligent variable speed control system, plus bespoke packages & skids built to order.
- **Business Systems:** state-of-the-art e-commerce technologies that deliver 24/7 support enabling customers to select pumps and place orders on-line and then track every stage of manufacture through to delivery, any time, anywhere in the world.

The company operates globally from its base in Rendlesham Suffolk, United Kingdom and has a customer base of world-leading companies, including BP, Shell, ExxonMobil, GlaxoSmithKline, Pfizer, Spirax Sarco, Diageo, AMEC, Fluor and Halliburton.

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## **About Innova Systems**

Innova is the leading UK distributor of Solidworks, an advanced 3D Mechanical CAD system that enables engineers to rapidly develop and refine ideas to create innovative products. By combining SolidWorks with Innova Systems' expertise, training facilities and commitment to support customers, Innova is helping companies across the UK to significantly change and improve the way new products are created. <http://www.innova-systems.co.uk>

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