

PRECISION ENGINEERING DESIGN LTD

CASE STUDY

Joint Effort Brings Results . . .

Precision Engineering Design Ltd (PED) was one of the very first design consultants in the UK to purchase SolidWorks, early in 1997. As a leading design company, they saw the clear advantage of being able to offer 3D design in order to distinguish their capabilities and service over and above that offered by contract drafting practices.

Since then, PED Directors Richard Hockley and Paul Kurn have maintained a close relationship with SolidWorks provider NT CADCAM. In fact, PED is a SolidWorks Manufacturing Network Partner and a Beta site. Hockley says, "NT CADCAM has shown us how SolidWorks - when used fully - is so much more than a simple drafting tool, and in doing so they have truly added value to this package."

PED operates SolidWorks 3D plus Gold Partner upgrades, COSMOS, e-Drawings, PhotoWorks and SolidWorks Animator. Being a network partner, PED has become involved with many NT CADCAM customers, often providing technical design advice and software expertise to end-users operating the core SolidWorks 3D package. Hockley comments, "Having five seats and always getting to know SolidWorks upgrades quickly means we can offer the latest software design technology to all, performing tasks others are unable to do, successfully, quickly and economically."

Kurn highlights some examples of how Gold Partner upgrades have helped them secure additional business: "Recently we designed the world's first Veterinary MRI scanner for standing horses. The specification asked for a robotic mechanism to control the movement of a 1 tonne permanent magnet that could be manoeuvred through 90 degrees.

The mechanism had to be constructed in non-magnetic aluminium alloy and be as compact as possible. COSMOS allowed us to study the proposed casting designs economically in-house, simulating loads and forces at every angle of the magnet rotation. Traditional stress analysis would have involved lengthy calculations and prototyping, quite possibly still resulting in over-engineering and a bulkier design." Both Hockley and Kurn are listed on the machine patent as inventors.

Kurn adds that the graphic quality of Gold Partner PhotoWorks and SolidWorks Animator is so good they are now being asked to help companies prepare important product sales presentations. Julian Bradshaw, Director of Brooklands Process Technology Ltd, recently commissioned PED to prepare an animated presentation of a multimillion pound food processing and packaging plant. Bradshaw says, "The presentation was captivating and the customer's understanding of, and confidence in, the product was clearly heightened. Winning the order was confirmation of this."

PED have over 50 years' combined engineering product, process and design experience. Their involvement with the client can vary from 3D models to in-depth manufacturing instructions. Hockley says, "We have intricate time engineering skills and solutions in a wide number of applications and industries, which makes us an ideal SolidWorks Manufacturing Network Partner. Our relationship with NT CADCAM has allowed us to easily identify how SolidWorks can enhance our design services and has been paramount to our continued success."