



SEIKI SYSTEMS LTD

Manufacturing Software
Solutions

ENTERPRISE RESOURCE PLANNING

WWW.SEIKISYSTEMS.CO.UK

SEIKI SYSTEMS LTD

Olivier House
18 Marine Parade
Brighton
East Sussex
BN2 1TL

Phone: 01273 680411
Fax: 01273 602564

E-mail: sales@seikisystems.co.uk

ERP CASE STUDY

Seiki Systems ERP software energises Pen Cutting Tools

The ongoing developments to extract energy from greener, naturally renewable sources has been accelerated due to the climate change challenge that the world faces. Energy from wind is one sector that has seen rapid growth, with Europe at the hub of this booming high-tech industry.



This growth can be seen from the first commercial wind farm in the UK, built in Cornwall in 1991 using 400 kW turbines, and today there are around 2000 onshore and offshore energy generating turbines operational in the UK. With the latest trials of large diameter turbines providing over 4 MW each.

Within the nacelle of a wind turbine there are sets of bearings in the drive-train that allow the transfer of the rotation of the blades via a gearbox back to the generator. There is also a large bearing fitted at the base of each blade where it is attached to the hub. These allow the pitch of the blade to be trimmed according to wind conditions, to maximise energy extraction and stop any torque overload during high winds.

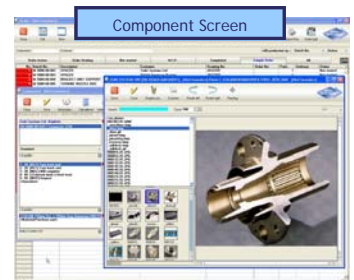
Such has been the uptake in this renewable source of energy that globally there is a shortage of the large diameter special bearings required to construct these highly efficient power generating systems. As a supplier to the companies that manufacture these bearings, Sheffield-based Pen Cutting Tools is aware of this situation and is constantly under pressure to deliver.

Established in 1963, the company's main core of customers reads like a *who's who* of the industrial bearing sector, and wind turbines currently represent the majority of the challenges, and revenue. Managing director, John Shaw, explains: "Many of the bearing suppliers are investing heavily to support renewable energy projects, with wind and wave power generation being the most favourable at present. There is currently a world shortage of the large bearings typically used in wind turbine equipment. These bearings can go up to a staggering 4 m in diameter and there is currently a three-year wait for any large diameter bearings."

Pen Cutting Tools has the capacity to produce tooling and driving units for the manufacture of bearing products up to 600 mm diameter, which would typically cover most of the bearings currently used on wind farms. The favoured design is twin spherical bearings, featuring two roller tracks designed for the relatively slow moving heavy loads.

To keep pace with demands Pen Cutting Tools has expanded its own production facilities building on from traditional milling, turning and grinding the company now has high-speed milling, 5-axis wire erosion and die sinking machines. All of these processes are used to finish parts from engineering plastics, tungsten carbide, diamond and hardened steel. And, it's not just the capital equipment that has seen investment to improve productivity. One of the company's key purchases according to John Shaw has been its Enterprise Resource Planning (ERP) manufacturing software provided by Seiki Systems.

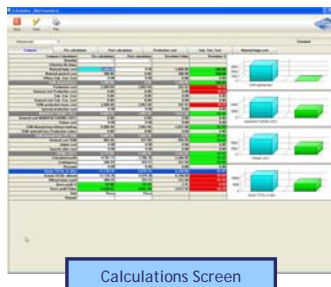
"The ERP system from Seiki Systems was purchased to replace an old manufacturing system, which we had run for around 15 years. We had a new IT hardware system installed with a networked server followed by the Seiki Systems software," says John Shaw. In fact, Pen Cutting Tools was one of the first companies in the UK to install the ERP software and a full training package was provided to help the company get up to speed as quickly as possible.



According to John Shaw the amount of time saved in the front office by the software is incredible. "From the data I input, the software automatically develops documentation in a logical way, from quotation to order right through to delivery note and invoice. It avoids the duplication that was taking place with our old system, keeping the whole process as streamlined as possible," he states.

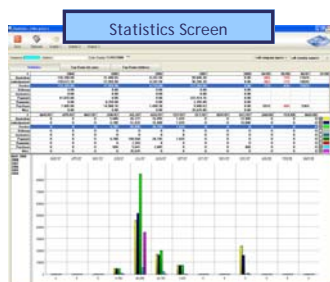
Seiki Systems ERP software energises Pen Cutting Tools

As the company runs mainly small batches, the quoting process can be a bottle-neck for the 25-strong company, with 22 of the staff working in production on the shopfloor. However, the search facility within the software allows similar jobs to be found and essential information, such as margins, hours booked and so on, viewed before any new quotes are provided. John Shaw adds: "Searching the many jobs that have been loaded on the system, within a couple of minutes I can get a good feel for the process time required for a job. Then I only need to update the material price. It requires far less running around to track down the information. The margin figure was set up for us by Seiki Systems. After we told them how we worked it out, they duplicated that in the system. It helps to highlight any jobs that were taken on at too low a price and allows you to quote more accurately the next time."



Although accurately costing the wide variety of tooling required to produce tightly tolerance bearings is vital to the company's profitability, a quick turnaround is also important. The lead time from design to production of a bearing used to take four to five months, the goal now is to do it in eight to 10 weeks, including prototyping and tooling for production. This is not easy when the material specified can have a three to five week lead time.

To avoid any material-specific delays consignment stocks of wear parts and consumable tooling is held at the customer or by Pen Cutting Tools. This is charged when the stock is used and has helped the company win a number of contracts - running as a Kanban system for solid carbide shoes, hot forging tools and so on. A significant amount of raw materials is also held.



John Shaw says: "I'm aware that we don't use every aspect of the ERP software but it's very flexible and the elements we do use provide more than enough benefits. For example, I can now track our turnover as invoices are issued, on an hourly basis if I want, this is something we have never been able to do. Previously it would have been an end of week updated figure. The dynamic data allows us to alter what we are doing to stay on top of the business. It also keeps historical data so that we can track peaks and troughs to help us address issues that occur throughout the year."

The company will be looking at Seiki Systems scheduling system soon to help manage the machine loading on the shopfloor. And, if it is as flexible as the ERP software and able to fall in-line with how the company has to work with its customers it may well be the next investment Pen Cutting Tools makes.

John Shaw concludes: "From our point of view it has been an excellent investment, support has been first class. Seiki Systems makes sure we run smoothly and any issues we have with the system are addressed remotely, which saves time."

The Seiki ERP is ideally suited for the SME market and overcomes the problems normally associated with trying to use multiple, uncoordinated spreadsheets and databases by integrating all the business functions into a single multi-user system. Seiki Systems' team of product specialists ensure that unique requirements of each ERP implementation are discussed and documented prior to installation in order to create a project plan that is then used to implement the system.

- Estimating
- Quotation
- Acknowledgement
- Production Planning
- Bills of Materials
- Delivery Note
- Invoicing



SEIKI SYSTEMS LTD

Manufacturing Software
Solutions

ENTERPRISE RESOURCE PLANNING

WWW.SEIKISYSTEMS.CO.UK

SEIKI SYSTEMS LTD

Olivier House
18 Marine Parade
Brighton
East Sussex
BN2 1TL

Phone: 01273 680411
Fax: 01273 602564
E-mail: sales@seikisystems.co.uk