

Leading UK-based aerial and antenna manufacturer tunes into success with Preactor



Founded in 1971, Blake UK is the leading UK-based manufacturer of antennas and installation equipment for TV, radio and satellite broadcast reception and radio communications. The £4m turnover company with 55 employees, designs, manufactures and distributes a wide range of quality own-brand and OEM subcontracted products.

With an ever changing product range and an intensively competitive market place, service, quality and availability are vital ingredients to success. When ongoing growth put strain on Blake's existing systems the company turned to Preactor to get a clearer picture of its planning and scheduling capabilities.



The aerial and antenna business is varied, rapidly changing and difficult to predict. In addition to the normal cut-price competition from the Far East and elsewhere within the EU, the imminent switch to a fully digital TV service is adding an extra element of competition. Specifically, other manufacturers are using the UK as a test-bed for their own cut price products for when their own countries switch from analogue to digital TV. As Managing Director Paul Blake says, "the market is consequently flooded with cheap and inferior quality product which is why we have focussed on developing a reputation not just of quality but of ease of assembly and installation. What always matters most however is having the right product in stock at the right time because customers do not expect to have to wait and may well go elsewhere."

When you consider that Blake UK had a product range in excess of 500 distinct items from individual attenuators through to complete aerial assemblies including clamps, brackets and electronics, the scale of the company's challenges starts to become apparent. Add to this individual order sizes which range from £5 to £6000 with long term contracts being in excess of £200,000 requiring monthly call-offs and it's easy to see why planning for a target 7 day lead time is a key aim. Further complications exist in that Blake UK also selling direct from stock via a trade counter with all the short term variability that this brings. As Paul remarks, "We might have an installer come in and require anywhere between 2 and 10 of a certain type of aerial. We have to

ensure we have sufficient stocks levels so he can get all of his order. Given that we supply different products in varying stages of assembly, we have to balance physical storage capacity with the costs associated with keeping significant stock while also being aware that a certain model may suddenly fall out of favour at any time.”



A recent transition to sourcing some components in different stages of sub-assembly has also added to the planning challenges. For example, Blake UK has the full range of in-house facilities to produce a mounting bracket from raw materials. This would typically involve cutting raw materials to size, pressing, drilling, notching, welding then sending out to a 3rd party subcontractor for the required finishing.

It could also be received in a largely pre-finished stage just requiring one or two further processes. It's even more varied for aerials which may require different levels of time consuming hand assembly in order to distribute in appropriate assembly kit form.

Again, add to this other considerations like in-house assembled electronic components or complete assemblies supplied from the Far East and it's no wonder that Paul described the previous planning process as reaching a level that, “simply became impossible for a human to manage.”

Prior to investing in Preactor, Blake UK relied on a combination of its CS3 business management system and a collection of custom Excel spreadsheets. While this worked after a fashion, as the business grew it became increasingly difficult to keep track of all the potential variables that could affect the production schedule. While CS3 could manage multiple stock locations, there was a permanent degree of divergence between what stocks were recorded on the system and what stocks the company physically had. This resulted in the need to continually re-check stock levels or potentially run out of a component mid-run which would then disrupt the plan in addition to leading to the customer not getting his order, in full and on time. Supplier deliveries were also less than straightforward to manage. For example, 4 batches of different components could be ordered and they may arrive in staggered amounts, out of sequence, and with no prior warning.

Sales Orders were equally as imprecise. “It's not uncommon for a customer to order X amount of product Y to be delivered by date Z when in reality he may only need half of that amount by the date and be happy to take the rest later.” He continues, “In our busiest periods, my own detailed knowledge of our customers was often called upon to determine those customers we could part-supply to and those we couldn't. As our customer numbers increased, we recognised the need to systematize a lot of this knowledge and to automate it because it was no longer possible to track this level of information.”

As if this wasn't enough, Blake UK had to deal with the familiar manufacturing constraints of machine and human resource optimization, avoiding bottlenecks and responding to last minute changes in production. The final consideration was maximising the potential of its own delivery fleet as orders very rarely conveniently fitted a full van load. "Looking after our customers has always been our key concern," explains Paul, "so when we saw our lead times stretching at times to 12 weeks we knew we had to do something different." He continues, "We had also invested heavily in developing an online ordering and tracking system which meant that our customers had high expectations. The lack of visibility about where a customer order was meant that we were also struggling to give our customers the information they needed to plan accordingly."



The solution was provided in 2003 by Steven Littlewood of TSP, an IT consultant that had been responsible for working with Blake UK to develop its in-house scanning system. Steve was also TSP's expert on an automated planning and scheduling solution called Preactor from Preactor International so when he became aware of Blake's situation, he introduced Paul to the system. Paul candidly recalls his first impressions of Preactor. "To be honest, I didn't understand it at all because it was so different from the way we'd been trying to run our own planning requirements. What I did know however was that if Steve said it would work for us, this was the system we needed to have."

Implementation began soon afterwards with the first task being to identify the data required by Preactor that already existed within CS3 and that which would need to be added from elsewhere. A decision was taken to work on a Just In Time (JIT) manufacturing basis with everything therefore being backwards scheduled from the order due date. A rolling 7 day planning horizon was agreed on with this being updated daily each morning. This involves CS3 passing all the relevant data into Preactor which then generates a live and updated works order schedule that can be amended and fine tuned. Once this is confirmed this is passed back to CS3. Actual progress of each order is fed directly back into CS3 in real time by the company's scanning system which ensures that Preactor has completely accurate data to work with for the following day.

Unsurprisingly the benefits have been considerable although impossible to quantify as is often the case when having little accurate visibility of previous performance levels. For example, Blake UK now has complete visibility of not just its daily production plan but also its next 7 days projected workload. It also has the ability to manually adjust this plan and immediately see the impact of any changes made which can be

invaluable when optimising delivery levels that comprise multiple parts. Paul is adamant that as a result the company is in better shape than before. “Preactor has allowed to us to sizeably reduce our stock levels and improve our Just in Time capabilities which is why our lead time has been reduced from a number of weeks to just 7 days.”



Cavin Carver is the company’s Works Director and comments from this perspective on how Preactor has benefited Blake UK. “We use Preactor to both make to order and allow us to carry stock on critical lines. As a result of using the Preactor scheduling system our production planning has been reduced from two days a week to half an hour a day. We have also improved next day delivery ability to approx 85% and have also reduced backorders. Before we installed Preactor we were backordering certain items seven or eight times when we were busy. Now it is very unusual to see anything backordered more than twice and when this happens, it is due to a stock error, failed manufacturing plan or failed delivery.

We now have full visibility of the manufacturing plan for a week ahead on a rolling basis. This makes it much easier to adapt to changing requirements and assess knock on effects of changing the plan. We can also review and change the plan completely every 24 hours if necessary.”

As for the future, the company is contemplating further refinements to the way it uses Preactor in order to get even greater levels of control. Specifically it is investigating ways to split large orders within Preactor but not in CS3 in order to further optimise delivery efficiencies. The final word belongs to Paul. “There’s more that we can do with the system but one thing’s for sure, we simply couldn’t have grown in the way we have as a company without Preactor.”