



PRESS RELEASE

Robot reduces skills issue at Audience systems and drives up component quality

By investing in a FANUC Robotics robot welding system, the main objective for Audience Systems was to fill a skills gap – now 12 months down the road the company can illustrate several other important advantages that have been gained.

Based in Westbury, Wiltshire, Audience Systems Ltd is like any other part of the country when it comes to shortages of manufacturing skills. Owned by the Japanese Kotobuki Corporation, the world's largest supplier of retractable seating, Audience Systems manufactures, designs, supplies and installs product from its UK base.

Among its customers are prestigious names including The Albert Hall, The O2 Arena, Glyndebourne, Royal Caribbean Ships and many of the world's developing areas such as Dubai. All of its customers demand quality and the nature of retractable auditorium seating defines that any failure in the product would be catastrophic.

Keith Ritson, Operations Director, Audience Systems, explained, "The quality of our retractable seating systems and innovation are key to our market and we pride ourselves that products installed many years ago function efficiently and within current guidelines. From a quality point of view we are ISO accredited and we are very involved in the industry helping to drive standards continually higher.

“All our welders are certified standard and externally audited and the need to maintain these standards has been exacerbated by incredible skill shortage. Although we have a low turnover of staff the average age is mid to late forties and this highlights, I believe, the issues caused by the general lack of apprenticeships.”

Audience Systems set out to overcome the skills shortage in the welding area by investigating robotic welding options. Several suppliers were contacted and the Audience Systems Team visited local manufacturers using robots to assess capability.

“Visiting robot users taught us a lot as very often the robot wasn’t being used and the reasons were mainly put down to difficulty programming and costly tooling. Having our own tool room and being advocates of training we were determined these issues would not affect us,” commented Keith.

After a lengthy period of assessing suppliers Audience Systems ordered a system from FANUC Robotics (UK) Ltd. Keith continued, “FANUC Robotics , even from the initial enquiry stage, were totally supportive – they helped us to understand from the early stages how to identify and manage jobs for automation and the importance of ensuring that all components for welding were consistent and to specification – this involved a great deal of constructive ‘up front’ work on their part.”

FANUC Robotics supplied a System 100 welding system comprising a single ARCMate 100iB robot, base mounted within a self contained guarded cell. Designed to be delivered fully operational, the System 100 can be lowered into position and operational within an hour.

Components are loaded onto a manually operated rotating table which allows components to be unloaded and loaded while components are welded within the safe confines of the cell.

Providing an overview of the impact on the workforce from the new installation, Keith explained that as automation was totally new to the factory there was naturally a reticence at first to robots possibly taking jobs. “Involvement of our skilled operators was essential – we had already learnt, and the welders needed to understand, that the system’s success depended on our understanding of the welding process and its application to automation. Training by FANUC proved to be the solution to any fears here as our technicians received highly supportive one-on-one direction.

“We also aimed to illustrate how straight-forward and versatile the robot could be to get the Team to buy in to robotics and now, after 1,500 hours of single shift operation, the team are now actively looking for new parts to put through the robot cell. All welders were trained and brought into the system and are now used to programme the system for semi-skilled operators to load and unload the tooling – the robot has freed up skilled welders from more mundane repetitive work allowing them to focus on specials making their work more interesting and varied.”

Having its own tool room has benefitted Audience Systems which now makes all its own automation tooling. This has helped to identify several supply issues, that weren’t previously apparent, where components were being supplied with inconsistencies – these issues have had to be addressed to enable the robot to locate components

consistently. “Automation has driven our component quality up, by maintaining our already high weld standards and by improving assembled product consistency,” continued Keith.

In summary Audience Systems has benefitted significantly from the investment, they have overcome the skills shortage issue, they claim significant savings are being made and additionally the manufacturing peaks of the industry are no longer an issue as the robot can be turned off when not required. An additional non-planned benefit has been the extra capacity allowed by the FANUC Robotics System 100 which has allowed them to take on contract work during the quiet ‘off season’ periods. A ROI within the target two years is ahead of plan and with typical weld times reduced from 9 minutes for a row support to 1½ minutes there is now increased capacity.





**Keith Ritson – Operations Director – Audience
Systems Ltd**

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Notes to editors:

FANUC Robotics UK Limited provides integrated robotic process solutions for manufacturing industry. A wholly owned subsidiary of FANUC Limited of Japan, FANUC Robotics has been established in the UK since 1982. Operating from its 2,200 sq mtr facility in Coventry, FANUC employs over 45 staff, and supports an installed UK base approaching 6,000 robots.

FANUC Limited was established in 1972 and employs over 2000 people world-wide. Based at the foot of Mt Fuji near Lake Yamanaka FANUC's factory uses over 1000 FANUC robots to support the production of over 24,000 robots per annum. The global installed base of Fanuc robots is over 160,000.