



Automation & Robotics



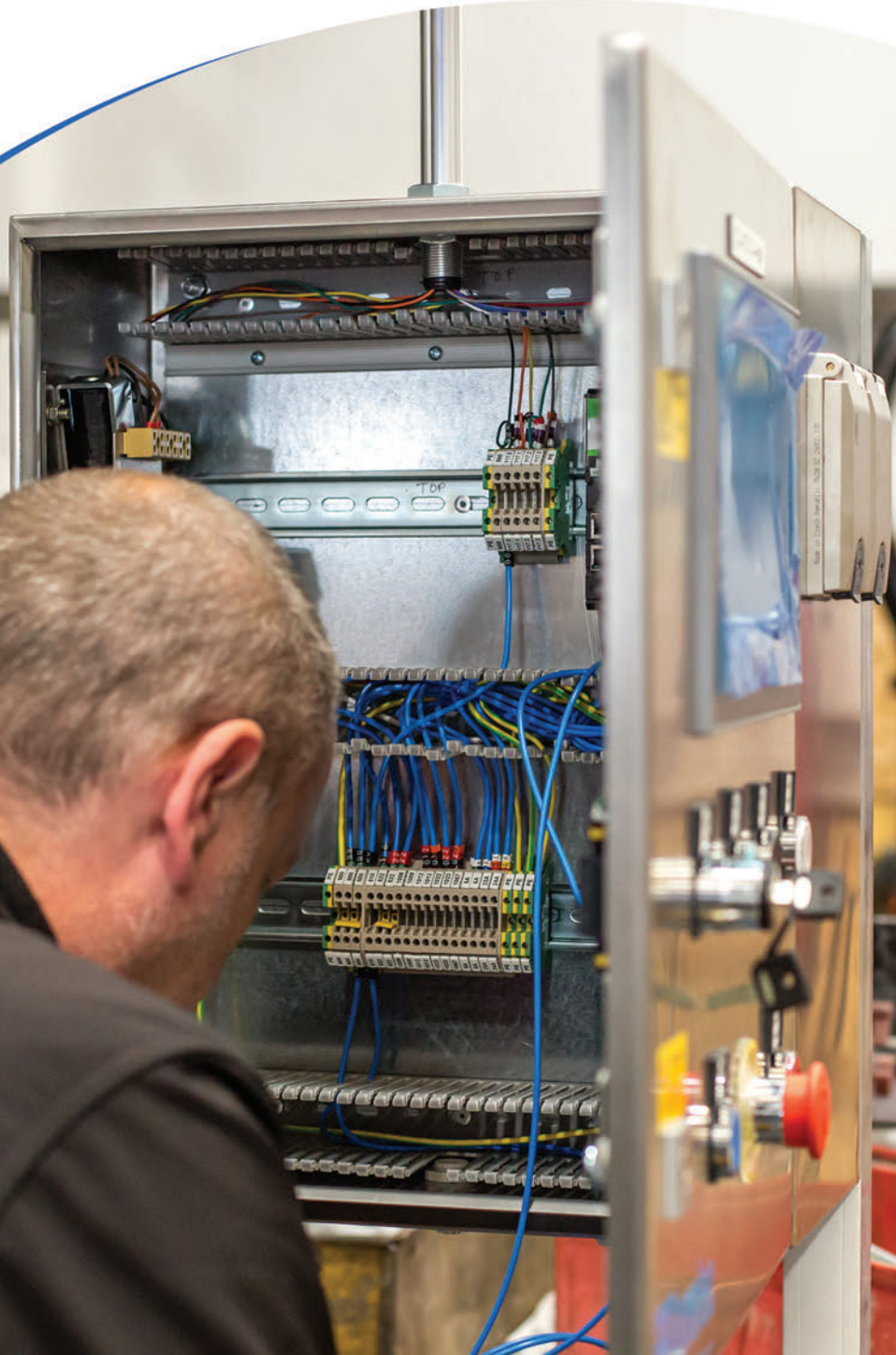
A bit about Banelec...

Banelec have always strived to be the best all round control system firm in the UK.

With many years of experience in the design, manufacture, installation and commissioning of control systems within a multitude of industries we consider ourselves to be one of the leading suppliers of such equipment in the UK.

We pride ourselves on delivering high quality products all designed and manufactured in-house using only top-quality equipment, designed and built by our very experienced and professional staff. Customer satisfaction is key to our survival and we take this very seriously. To date almost all customers who have placed a single order with Banelec have returned for further products.

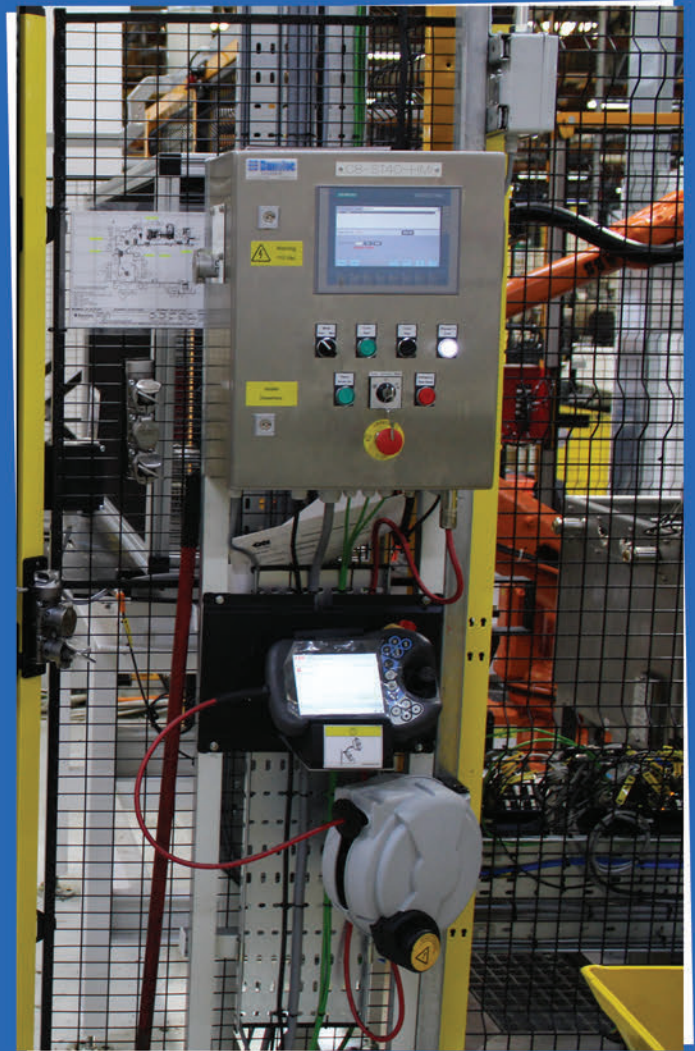
The workforce is the backbone of any company and at Banelec we ensure that all of our engineers and staff are fully trained and kept up-to-date with new procedures and legislation as required.



Experience...

Founded in May 2000 by Managing Director, Dean Banner; Banelec has grown both in size and reputation.

From its humble beginnings Banelec has achieved and maintained an excellent customer base. We have a diverse range of capabilities, not only in the automation industry but also in the oil and gas sector.



We have been involved in many projects including semi and fully automatic systems for the automotive industry. This has seen us play a role in many projects for companies such as Jaguar Land Rover – Aston Martin – Nissan – GKN, as well as high end engineering projects for Rolls Royce - Alstom and SAESL (Singapore Aero Engine Service Limited).

Every customer has unique requirements, so at Banelec we have the skill and flexibility to design bespoke control systems to meet individual clients needs in any industry.

From a small briefing with the client we will be able to assess what is required for a project and begin work on a design to suit. Whether it is a simple control panel, a panel for use in hazardous areas or a fully automated system, Banelec have the experience to ensure that all systems are designed to the latest standards and regulations.

Customers return to us time and time again, a true testament to our quality and devotion to customer satisfaction.

Why choose Banelec...

We are understanding

Banelec have designed and manufactured thousands of electrical systems, from basic starter panels to major automotive PLC and robotic control suites.

Occasionally customers bring to us their own designs or contract Banelec to create the entire design in-house; either way we will accommodate any changes or requirements the customer presents.



We are adaptable

At Banelec we will do our utmost to ensure that your control system is the most economical and maintenance friendly solution.

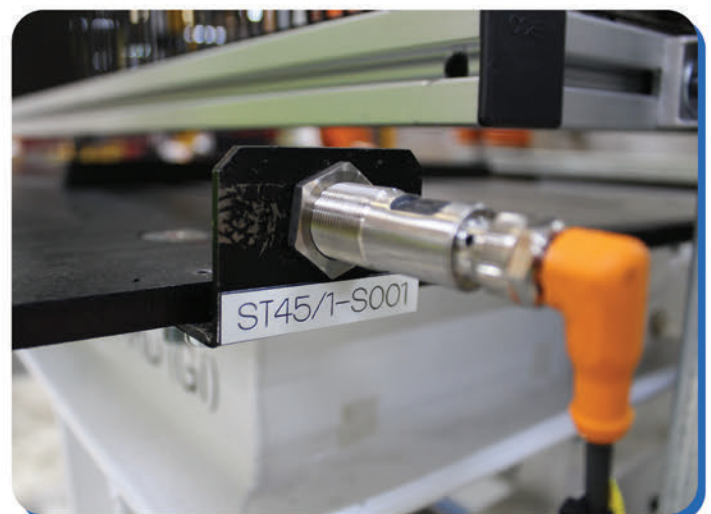
If contracted to, Banelec can also maintain systems following hand over. Therefore, we have learned the value of ensuring that only very neat and well-constructed control systems leave our premises; this is a great benefit to the future reliability of such vital control systems.

We are flexible

Some customers insist that our marking system adapts the point to point system, their usual in-house system, or may even need each cable core colour coded; no problem!

If a customer's specification dictates that sensors or PLC components should be a certain manufacturer then we can accommodate this in to our design process. If your enclosure for the panel has to be a certain manufacturer model or colour we can accommodate.

We strive to follow specifications as closely as possible.



We are inventive

We can adapt systems and software to meet the needs of a customer. In most cases our automation projects are bespoke, and we spend the time ensuring the system meets the requirements set out by the customer in their initial specification.



We are quality

At Banelec we pride ourselves in the quality of our workmanship and very often this is noted by our customers.

As we are often on site we know from the front line how frustrating it can be to work with and fault find in panels that are not to the same standard.

We are your choice

At Banelec we believe we offer the best all round solution to your automation requirements.

Our professional manner and supreme quality makes us your number one choice. Banelec removes the headaches surrounding the design, manufacture and tedious paperwork which goes with it.



Banelec are SafeContractor Approved

We received our accreditation for achieving excellence in health and safety in the workplace in August 2017.

Automation

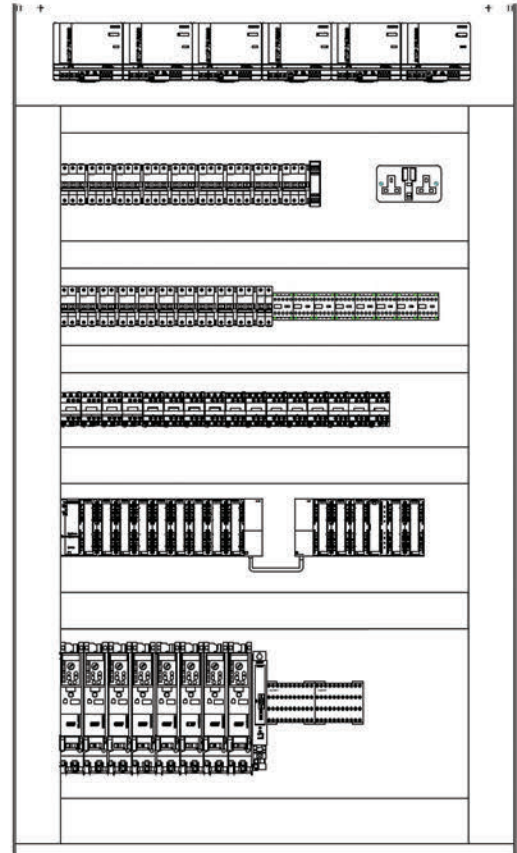
Banelec have provided complete fully and semi-automatic control systems for such industries as automotive, rail and even cement production.

With all our systems we offer:

Design

Full system design, whether it is a stand-alone complete system or being integrated into an existing process or system. Our very experienced staff take safety seriously and all systems will be designed to the appropriate safety levels and appropriate regulations and standards, even the PLC software is created with safety levels in mind.

Using the very latest AutoCAD software, our design team are the first in line getting your project moving, based upon your specification and function of the system, a full review is held to discuss the best option for your project.



Manufacture

From the master control panel to remote HMI panels and local isolators, Banelec engineers will produce all parts of the system in house. Full and partial FAT inspection offered to all customers. Banelec also support most PLC types and will produce the PLC software to suit.

Drawings approved by the customer will be used to compile the parts list, following this, our workshop engineers will build your panel from these drawings.

Anything that needs to be electrically controlled – Banelec can design a solution

Installation

We have a dedicated team of on-site engineers who will install the entire system – including mechanical aspects if required – all installations are carried out with the utmost professionalism and quality. We don't cut corners on any projects, so our customers only see the top-quality installation that Banelec aspire to.

Our engineers are team players who can work in accordance with other engineers the customer may have on site.

Our quality workmanship benefits Banelec as much as you – the customer. Maintenance is made much easier and quicker with excellent quality



Commissioning

Following installation, our PLC engineers apply the finishing touches of software to ensure the system is running as expected.

Occasionally, some aspects of the system may be altered during this stage, either by customer request or by a realisation that a process can be improved.

From initial concept to final handover, Banelec can be with you all the way



Training

Following successful completion of the whole installation, documentation will include a full detailed operation manual – amongst others – however we realise that there can be a great deal of instruction to take in, therefore we can offer on-site training as part of the contract.

We understand that sometimes a customer requires a change mid project, we won't make a big issue about it.

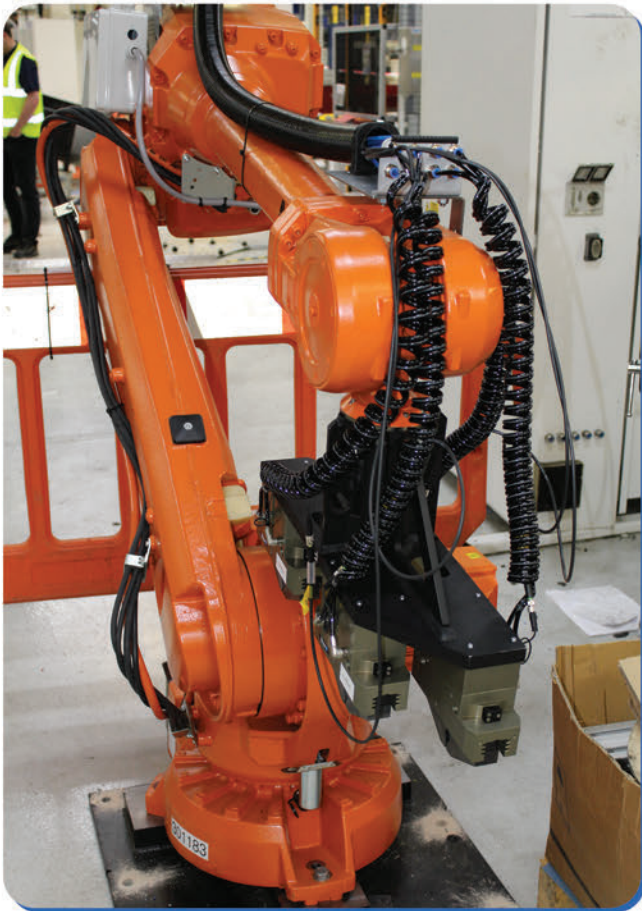


On-site & off-site support

We understand that complicated systems can have gremlins in them, Banelec can offer to retain engineers on-site following commissioning and hand-over for varying periods of time agreed with the customer.

If technical advice is needed following installation and commissioning Banelec are a phone call or email away and can provide the customer with any extra information or support, they may need.

Robotics



Recently Banelec have become more involved with the world of robotics in automation projects. We now have engineers capable of setting up robots in a number of procedures and have developed simulation software which enables us to digitally reproduce robotic procedures; this is particularly useful for calculating process times for high output systems.

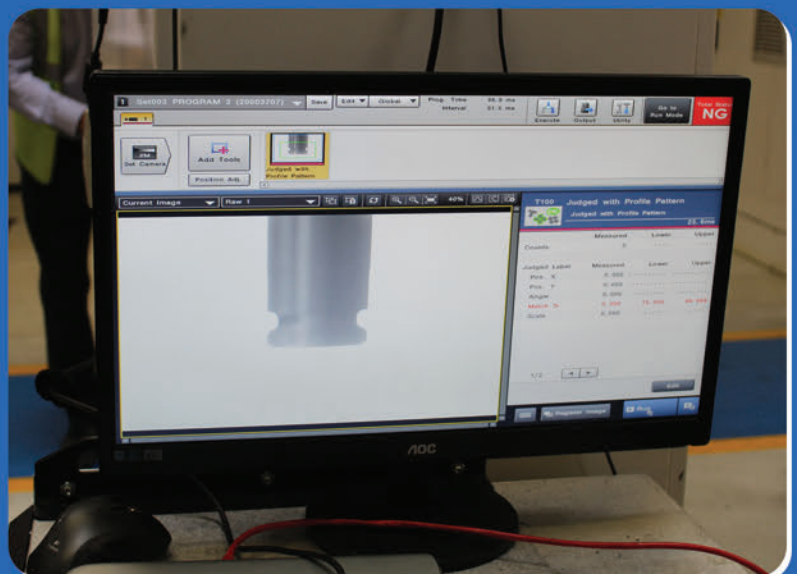
If your job specification calls for a certain manufacturer of robotics we can create a design based on this and ensure that the system incorporates those specifics.

Recent jobs have seen us design software for Kuka robots in the automotive industry.

All our software is designed to meet our customers specification and needs. Each package is individually designed and engineered with the specific job in mind. The appropriate PLC components and corresponding connections are always chosen specifically for the job and software to which it will interact.

Our software is created with productivity and efficiency in mind; ensuring that any processes that this software may control, will provide the customer with reliability and consistency.

Optimum safety is always incorporated into our software design, ensuring all standards and regulations are met.



Software

Case Study

GKN

With more and more demand within the automotive industry – GKN – a key supplier to Jaguar Land Rover, have now expanded their production facility to keep up with demand.

Banelec were invited by the main contractor – V Installations – to bid for the electrical component of the system, in which we were successful.

Our scope was to design a fully/semi-automatic electrical control system to manufacture completed drive shaft components and deposit them into delivery silos ready for despatch to the customer. This entire process involves very little human intervention during the production and is capable of 220+ extra shafts per hour, a vast increase in productivity.

Although we have completed many projects within the automation industry this one proved to be a lot more involved; Banelec not only designed, manufactured and installed the complete electrical system but also incorporated robots and high precision camera analysis.



Following the completion of our first production cell installation at GKN facilities in Birmingham it was deemed that this should be the benchmark for all jobs of its type within their bar shaft production facilities.

It increased output significantly and worked more efficiently than previous companies' designs had.

Since the installation of our first system we have returned and installed three further cells within this plant to the same high specification. The robotic system we designed and installed for GKN works quicker and more accurately than any of the systems they had previously used within their facilities, hence their return for repeat systems.



SAESL

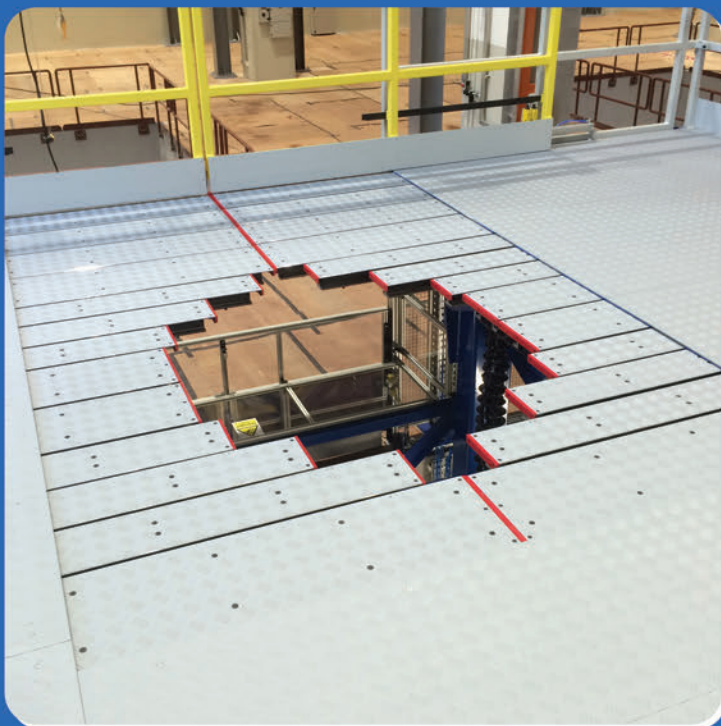
Our expertise was called upon following numerous successful automation projects.

The specification for this type of system was to allow aero-engine technicians the ability to ergonomically access any part of a civil aircraft jet engine core without the need for stretching or crouching in awkward and potentially hazardous positions.

Our customer dealt with the mechanical aspect of this project and we dealt with all electrical apparatus and operational equipment.

This is a revolutionary method for which the electrical controls have been designed to regulate a retractable working platform. The platform uses finger-like segments which extend and retract to exact precision around assorted designs of engine, without making contact.

The system has been programmed to know the dimensions of each engine variant, allowing the fingers to fit securely around each individual engine, to create a platform for maintenance staff to walk on to build, service and maintain the engines.



This system also allows for the engine core to move up and down creating a platform for the engineers to work safely and efficiently at any height; again, being programmed for various engines.

It is a simple to use system which allows the client to quickly and effectively adapt the platform to suit their needs dependant upon a particular variant of engine, revolutionising the productivity and speed that operations can be performed.

In total Banelec supplied 5 similar systems with slight variations. The design of the system was considered so that not only was it practical but extremely tidy, something we feel very strongly about at Banelec.

Once all systems were finished and the preliminary factory acceptance tests were complete, we sent engineers and technicians out to Singapore to perform the installation, finalise the software, perform site acceptance tests and train SAESL technicians.



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 **Banelec**
In Control