

## **PK Engineering Services**

Electrical, Mechanical, Design Services, Control and Automation, Fire & Security







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"We have used the services of PK Engineering (Carlisle) Ltd on numerous occasions over the past 10 years and we continue to use their services in the knowledge that their work will always be completed to the same high standard" Malcolm Wilson OBE, M-Sport Ltd

## **PK Engineering Services**



PK Engineering has been offering design, installation and maintenance of mechanical and electrical (M&E) services to the public, retail, industrial, commercial and leisure sectors for nearly 30 years. We are proud of the reputation we have built throughout Cumbria, North-West England and Southern Scotland providing electrical installation services and back-up maintenance. Our work ranges from the smallest installation project to the most complex design and build scheme.

We employ professional, skilled and motivated staff to consistently deliver successful projects for our clients. This culture has helped the company to develop and expand in a controlled manner. Each year we have shown strong, consistent growth, currently employing 30 people and operating from a head office in Carlisle.

With PK Engineering you can rest assured as we are NICEIC and GAS SAFE registered. The aim of these organisations is to protect everyone who uses electricity and gas from unsafe electrical installations in homes and work places. This means PK Engineering is nationally acknowledged for offering a safe, competent service by experienced staff, verified by the industry's main governing bodies.

## Our employees also hold the following registration and cards:

#### PTS or Personal Track Safety Certificates

PTS is a system of safer working practices employed within the United Kingdom designed to ensure the safety of railway workers who have to work on or near the line.

#### **EUSR Registered**

We are on the EUSR register and our employees hold the The Basic Electrical Safety Competence (BESC) cards which are for all persons who work directly or indirectly, on or near operational plant and equipment connected with electricity transmission and distribution.

#### SPA - Food Passport Card

The SPA card is the nationally recognised standard of H&S in the food and Beverage industries.

# Electrical Services

The Electrical division of PK Engineering provides various services delivered from one combined foundation. Our capabilities have been established over 30 years to deliver any task across the extensive range of the UK electrical requirements.



At PK Engineering we continue to improve the division to meet these demands on all our projects. Our locally based Electricians and Engineers deliver a wide range of electrical services from small installations to major design and build projects. We bring modern technology, design innovations and imaginative thinking to provide our customers with the best possible solutions.

"PK Engineering were the principal electrical contractor on the High Output Operations Base in Kingmoor, Carlisle. They offered a proactive attitude and a high standard of work. They were Instrumental in producing a high standard project to a tight programme. The Project has since been nominated for a Network Rail Award - Best Small Project . PK Engineering played a significant part in this."

Jonathan Moran BEng (Hons), Site Agent, Buckingham Group Contracting

### Services Include

- Primary & Secondary distribution networks
- General lighting including
  emergency and back up lighting
- Lighting controls
- General small power

- Network & Data installations
- Fire Alarm Systems
- Security Systems

A CAPITY

Street & Road lighting

## Mechanical Services



The mechanical division was set up to meet the increasing demand by clients for fully integrated building services installations on all sizes of projects. Since then it has established itself, successfully carrying out projects with values up to £750k.

A strong emphasis on innovative design coupled with quality installation runs through all our projects, allowing us to provide a cost effective response to our clients requirements.

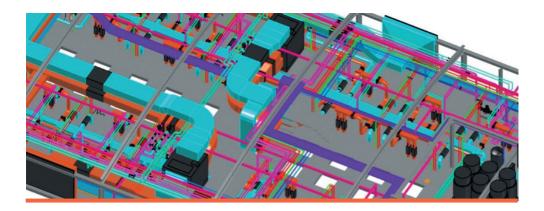
"On behalf of the PCC of Lanercost Priory we would like to express our appreciation of the tidy and respectful way in which the project work has been carried out. The team were most considerate in respecting the character of the building, the times of church services, and the many occasions when visitors were walking around the Priory. Sandy Dalton, Project Manager, and Mike King, Electrical Manager, were very good to work with, and ensured the work was undertaken in an orderly way." - Rod Allon-Smith, Vicar, Lanercost Priory



## Services Include

- The supply and installation of Chilled Water Systems
- Water Services
- Compressed Air
- Hot and Cold Services

- Heating Systems
- Ventilation and Air Conditioning
- Process Systems
- Plant Utilities
- Steam, Condensate and Cleanroom



# Design Services

These range from standard off-the-shelf projects, unique bespoke designs to exact requests, to standard lighting and power installations – and are all provided the best solution for your business. PK Engineering is able to identify the prime solution to meet your needs, financial budgets and timescales. Our combination of knowledge, experience, dedication and skill enables us to undertake a wide range of project designs and to work closely with your team to deliver full development management to ensure projects are completed to schedule and budget.

The personal approach of PK Engineering to business and servicing of customers' requirements has contributed to the establishment of an impressive portfolio of clients.

PK Engineering draws on the highest calibre of skills and is able to offer Mechanical & Electrical design throughout the UK. The M&E Building Services Division aims to offer our clients a fresh and modern approach to the design of services and recognises the importance of the finished working environment and the impact it has on those using the building.



## Design Services: M&E Building Services

Through the harnessing of our in-house strengths to new and existing technologies, we aim to deliver a high quality service and finished product that more than meets the needs of our clients. With innovation and foresight we believe that we can help produce modern, sustainable and easily maintained buildings within the increasingly tight budgets and timescales set by our clients.

The PK Engineering design service that we provide encourages open dialogue between members, rather than each member performing his service in a space with minimum rather than maximum team involvement.

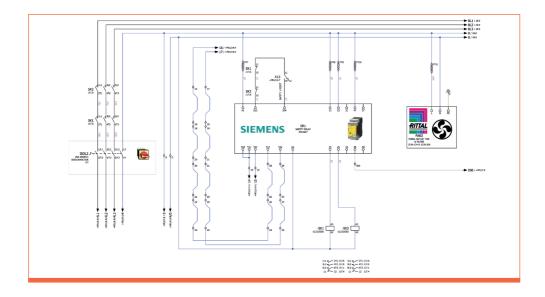
Our ability to offer a complete in-house service ensures good and close relationships within the client design team, producing projects that are delivered within budget and on time, thereby maximising the value of the investment to our client.



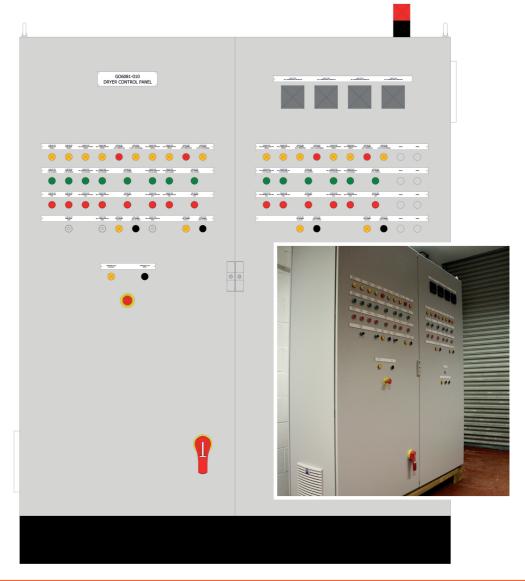
We aim to provide a proactive rather than a reactive level of service and at every stage in the service we contribute fully to identifying and solving the numerous problems that arise throughout the duration of any building contract, whether briefing, financial, legal, specification, programming and many more.

## Design **Services** Control & Automation

From conceptual design through to on-site commissioning of fully engineered hardware and software contracts, PK Engineering can offer the integrated advanced design service necessary to meet the most challenging requirements of its UK wide clientele.



PK Engineering offers complete engineering systems, producing optimum efficiency and accuracy, using CAE & CAD systems. The latest techniques in fully automatic systems enhance engineering capabilities and help ensure data is managed and utilised to its best possible effect. PK Engineering engineers work to sound principles with quality of the product always foremost in mind. PK Engineering products are designed to incorporate both user friendliness and safety and take into account the most current of European Legislation e.g. CE marking.



'The project was completed on time and to a high standard, I would like to take this opportunity to thank PK for their efforts and look forward to working with them again in the near future." Ben Clark, Carr's Senior Project Manager



## Control & Automation

Using our knowledge and expertise the project team can offer full system design, installation and a forward looking support service. PK Engineering offers design, installation, commissioning and testing to the industrial and commercial market, offering a wide range of services.

Over the past few years our Controls Division has built up a dedicated team of Control Engineers, which allows us to offer cost effective Automation and Control Systems to a range of industries. These include food, beverage, manufacturing, milling and automotive sectors, to name but a few. "PK supplied the control panel and associated control gear including Allen Bradley Micrologix PLC and ULTRA 3000 Motion Control Package for the first of three planned installations, having secured the contract to install two more units onto Manchester's 'Jaffa Cake' Plant."

Robert F McCartney, UB UK Group Central Engineering



## Services Include

- Control Panel Design and Manufacture
- SCADA & HMI
- PLC controlled automation
- Conveyor Systems

- Process Control Systems
- Machining Safety Systems

## Fire & Security



PK Engineering's aim is to provide a 'One Stop Shop' to all customers by offering a complete range of services from design, supply, install, commission, service and maintenance across all Fire and Security Systems. Accredited to the SSAIB, all of our technicians offer expert installation of the very highest service. We are proud to provide dedicated customer service and constantly up-dated support and guidance to accredited British Standard levels.

"We have had the pleasure of working with PK Engineering for several years now. Their support and commitment to Cavaghan & Gray has been first class. PK Engineering are a forward thinking company and are constantly striving to improve their service to the customer. We find their knowledge and advice, both on legislation and the latest electrical innovations invaluable. For those reasons, PK Engineering have established themselves as Cavaghan & Gray's primary electrical contractor. I would have no hesitation in recommending PK Engineering to other companies and be safe in the knowledge that excellent service and support would be provided."

- Chief Engineer, Cavaghan & Gray, Carlisle



### Services Include

#### **Fire Alarm Systems**

- Design, Supply, Installation, Commissioning & Maintenance
- Domestic, Industrial & Commercial Premises
- Conventional, Intelligent & Fully Networked Systems
- Aspirating Fire Alarm Systems
- Refuge Point Alarm Systems

#### Security Alarm, CCTV & NVR Systems

- Design, Supply, Installation, Commissioning and Maintenance of Fully Integrated Security Alarm Systems
- Central Station Monitoring with Redcare GSM, Redcare Classic, Dualcom & Digital Communicator
- Closed Circuit & Fully Networked Camera Systems
- 24 Hour, 365 Day Engineer Backup & Callout

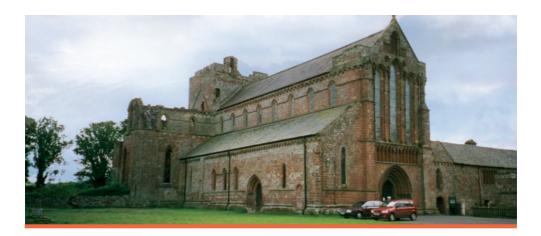
#### Access Control

- Fully Integrated, PC Based & Stand Alone Access Control Systems
- Biometric, Proximity & Swipe Card Systems
- Audio & Video Door Entry Systems comprising of Single & Multiple Entry Points
- Vehicle Barrier & Gated Entry Systems

#### Public Assistance

- Nurse & Warden Call Systems
- Disabled WC Assistance Alarms
- Induction Loop Systems

## Portfolio



### Lanercost Priory

We were approached by the Priory to look at the renewal of the existing heating system which was antiquated and inefficient. They had previously commissioned an initial survey but wanted it taking on to a fully developed design and price. We carried out an extensive survey and provided them with a solution which took account of the unique nature of this very old and beautiful building as well as the particularly intermittent useage pattern. During the course of the works we were also commissioned to carry out various electrical upgrades.

Whilst the work was being carried out it was essential to closely liaise with the client to ensure that nothing detrimental to the structure of the building took place and our staff on site worked closely with the PCC to ensure everything was to their satisfaction. The overall result was a dramatic improvement in the heating in the building, ensuring the longevity of the structure as well as providing much more comfortable conditions for the occupants during the many and varied services and events held there.

"On behalf of the PCC of Lanercost Priory we would like to express our appreciation of the tidy and respectful way in which the project work has been carried out. The team were most considerate in respecting the character of the building, the times of church services, and the many occasions when visitors were walking around the Priory. Sandy Dalton, Project Manager, and Mike King, Electrical Manager, were very good to work with, and ensured the work was undertaken in an orderly way." - Rod Allon-Smith, Vicar, Lanercost Priory



#### McVities, Carlisle

PK Engineering has recently carried out the installation and commissioning of a product-handling system for a new cracker product at McVities, Carlisle. This included a dust extraction system and vacuum conveying system. As well as the general installation, PK worked closely with the supplier of the vacuum system to ensure correct operation. A new laser operated level detect system was also developed.



#### Vindolanda Charitable Trust

PK Engineering also recently worked with the Vindolanda and Roman Army Museum on a new build and a major refurbishment projects, incorporating both mechanical and electrical installations.



#### Carr's Flour Mills, Silloth

This project involved the electrical installation and commissioning of conveying equipment and bulk handling facilities. The purpose of the project was to reduce whole grains of wheat in size through kibbling (or cutting,) so that they can be used for breakfast cereal manufacture of flaked products.

### Services Included

- High And Low Voltage Installations
- Industrial/Process Installations
- Data Networking
- Fire Alarms
- Security Installations
- Design and Build

- Domestic, Commercial and
  Industrial Heating
- Industrial
- Air Conditioning
- Air Handling Units



#### Wigton Auction Mart

PK Engineering were involved by Story construction at the earliest stage to develop a design for the heating, plumbing and electrical installation at the new premises for Messr's Hope's at Wigton. We were able to work closely with the builder and the client on the development, which combined a new office facility, auction hall, auction rings, restaurant and pens.

This posed a variety of challenges in providing an integrated solution for the building services installation. We worked closely with Story's and Hopes to provide an end product which met the client's needs in an energy efficient and cost effective way. The work encompassed all aspects of building services from data and fire alarm through lighting, power, sanitary ware, heating, ventilation, hot and cold services and we were able to provide a complete design and build solution for the building.



#### The Meeting Place, U-Student, Sunderland

The Meeting Place is a purpose built café/bar located in the U-Student complex in Sunderland. PK Engineering designed the mechanical services specifically to cope with the potential of occupancy varying between a few people having coffee to a full on student Friday night! The installation comprised of an air handling unit incorporating heating, cooling and heat recovery. PK Engineering carried out the design, supply and installation of the air handling unit, boilers and controls in house.



### Humber Gateway

Humber Gateway 275kV GIS scheme was a new build project for Electricity Alliance North that consisted of the construction of a raised building to accommodate local flood risks. All buildings, substation compounds and auxiliary erections are built on piled foundations due to poor ground conditions and of a reinforced concrete substructure with steel frame and clad superstructure principle. As part of the construction team headed by Murphy Construction we were involved from the initial cost reviewing exercise, through to final handover. PK Engineering was contracted to supply and install the Mechanical & Electrical infrastructure along with an IT Installation. The project was completed in a shorter time period than originally allocated and still within the set budget.

### The Project included:

- External lighting installation to all areas
- General lighting and emergency lighting to office and 275kV switch hall
- General small power to office and 275kV switch hall.
- 400v & 110v systems to the 275kV switch hall
- Ventilation to the 275kv Switch hall including the design & supply of a BMS control system for the ventilation units and separate dampers.
- An L1 Analogue Addressable Fire Alarm to office and 275kV Transformer areas, with intrinsically safe units installed to the battery room.
- Welfare and canteen plumbing including sanitary ware.
- Trace heating to all external pipework
- Air Conditioning and ducted ventilation to various offices and relay rooms.





Real Energy is the renewable energy division of PK Engineering, carrying out a wide range of renewable projects throughout the North of England and Scotland. With a vast experience of a wide variety of renewables project, we aim to provide you with a cost effective, professional service that will provide maximum benefits from your installation



### **Non-Domestic Biomass Boiler Installations**

The introduction of the Government's Renewable Heat Incentive scheme has resulted in a major increase in the provision of biomass installations. Real Renewable Energy have the expertise, professionalism, resources and experience to ensure the provision of an installation of the highest quality, with minimum disruption to yourselves.

### The Castletown Estate, Rockcliffe



Provision of a 199KW wood chip boiler in a dedicated Plant Room and Fuel Store, to serve Stately Home, Offices, Garden Cottage, Stable Cottage, Green House and Swimming Pool. The boiler serves a district heating network with over 4000m of underground low loss highly insulated underground pipework, linking to systems within each property via plate heat exchangers.

### **Commercial Solar PV Installations**

The maintenance of the level of Feed In Tarrifs (FITs) as costs have fallen at the same time has led to the increased viability of commercial solar PV projects. Real Renewable Energy have the expertise, professionalism, resources and experience to ensure the provision of an installation of the highest quality, with minimum disruption to yourselves.

### Ostrich World, Penrith



Provision of a 36KW Solar PV system.

### Mallinson Fabrications, Dalston



Provision of a 28KW Solar PV system.



We are proud of the reputation we have built throughout Cumbria, North-West England and Southern Scotland providing Mechanical, Electrical and Controls installation services and back-up maintenance. Our work ranges from the smallest installation project to the most complex design and build scheme.

#### Address

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