

Coldcurve



Highland Grain Drying Stores (40,000 tonnes)



Jonathan Reid, Managing Director

Coldcurve Ltd is a multi-disciplined engineering solutions provider supplying bespoke control systems nationally and internationally. We specialise in custom automation process controllers and electrical system design, creation and installation. Our factory automation systems can range from large scale, multiple remote sites networked to a main control centre, to small applications such as a temperature or valve controller.

Company History

The company was founded by Managing Director Jonathan Reid in 2003, when he was only 23 years old. After completing his apprenticeship as an electrician and working for an electrical company for several years in Aberdeenshire, he moved back to his home village of Moy in the Scottish Highlands. Here he set up Coldcurve, initially doing small home rewiring jobs but quite quickly started taking on bigger contracts. In 2007 Coldcurve became established as a limited company with its own board of directors.

The company is still based in Moy and in the past 10 years the business has grown and we are happy to take on contracts up to and exceeding £1million. We are looking at taking on several industrial electricians to complement our engineering design team.

Work and Play

Our headquarters has recently undergone a huge transformation. From working out of the spare bedroom of the Managing Directors home, we now have two fully renovated shipping containers which house our new office space and four other shipping containers that have been turned into workshops and component storage areas.

FACTS ABOUT COLDCURVE

- » Established in 2003
- » Limited Company in 2007
- » Specialists in SCADA, PLC and HMI
- » Specialists in control panel design and manufacturing
- » Based in Moy in the Scottish Highlands
- » Jonathan Reid, Managing Director
- » Board of Directors
 - » Jonathan Reid
 - » Bridget Gibson
 - » Mary Reid
 - » David Walker-Smith

“We are a small business, designing and installing all our own tailored control systems for our clients. Just because we are small, doesn't mean we can't take on big jobs”

Managing Director
Jonathan Reid

Coldcurve is a close knit company, just like the community in which it is based. During lunch we can usually be found sitting around the table, eating together and sharing ideas. Jonathan believes that investing time with his employees is essential to keeping the business strong and moving forward. Having a happy team who can openly communicate with each other increases workflow and production, making work life more enjoyable. Our team also share many interests outside of work. We are keen skiers, snowboarders and bikers and are often out in the hills together.

Clients and Continual Development

Since the beginning, Coldcurve has never had to go out its way to find work- it has always been through word of mouth and networking on site. The wide range of contracts mean

there is never a dull day in the office and recently the company has worked with oil, agricultural, medical and renewable industries.

One of our larger clients is Highland Grain Ltd, an agricultural cooperative which dries, conditions and stores malting barley and other crops. It primarily supplies the Scottish whisky distilling industry. Coldcurve was commissioned to replace the existing much extended control system with an efficient state of the art one.

A new bespoke Movicon SCADA was designed and installed to consolidate the series of plant upgrades and expansions for the grain drying and storage facility which supplies some of Scotland's leading distilleries. The new software provides control and visualisation for product movement, processing and storage, including the integration of biomass boilers and heat recovery systems.

Another large client is Honeyman group. Coldcurve was commissioned to design, construct and install a control system for dry heat ovens which are used in the sterilisation of silicone implants at the Biosil production facility in Cumbernauld. The new electrical control system is also programmed to barcode scan the products when they go in to the oven so there is a documentation trail for each product, printed at the end of each cycle.

Coldcurve controlled the dry heat oven using three phase heating elements and load control through burst firing. By using the burst firing it meant that the oven can be kept at an extremely consistent temperature throughout the entirety of each cycle. This project has been so successful that they are now in the process of commissioning oven number eight.

Coldcurve had also had a crucial role in supporting Scottish and

Highland Grain using their Coldcurve SCADA



Southern Energy (SSE) deliver a new, reliable 24 hour solar and wind generated power system for the Isle of Muck off the West Coast of Scotland. Since 2000 The Isle of Muck had not been connected to the mainland grid. The islanders received lottery funding in order to build a new renewable system for the community.

The new scheme provides a continuous 24 hour electricity supply using clean, sustainable, renewable sources leading to reduced diesel consumption and reduced maintenance. This has been a great benefit to the island and the environment allowing the population to stabilise and grow, safeguarding the community on Muck for years to come.

Our role was to ensure that excess energy produced by the new systems was fairly distributed among the islanders. This was challenging because the islanders are situated all over the island and the infrastructure is very old. The solution involved radio transmitters located in each building and a PLC controlled schedule of distribution, meaning the duration of excess power required is delivered to individual properties equally on a scheduled basis.

Manufacturing Excellence

The company follows strict industry guidelines and best practice, adhering to standards as a member of BSI. This is important as it shows that even though Coldcurve is a small business, it is working within the industry and quality management guidelines to make it an attractive, responsive company to potential clients.

Our company is in the process of developing and certifying our own Quality Management System alongside our Health and Safety Systems and Environmental Management Systems.

» AUTOMATION PROCESS CONTROLLERS

- » **PLC:** (Programmable Logic Controller)
An industrial Computer Control System continuously monitoring the state of input devices, making decisions from a custom program to control the output devices.
- » **HMI:** (Human Machine Interface)
Touch Screen interface used in manufacturing or process control systems.
- » **SCADA:** (Supervisory Control and Data Acquisition)
An industrial system used to control equipment remotely and monitor, gather and process real time data.



Completed Biosil/Nagor medical sterilisation ovens

What's Next?

Our vision is to continue working to a high standard, being at the forefront of research and development in automation and to continue providing bespoke electrical automation systems to our ever expanding customer base. Plans are also in motion for the manufacture of our own design dry heat oven for the medical industry.

We are working with various industries, local and national, to expand the manufacturing capabilities in the Highlands of Scotland and beyond. These include breweries, sawmills, distilleries and other industries we are under contract not to talk about!

We thrive on challenge and are excited about future possibilities.

“Working within the BSI standards shows that we take our responsibility to our clients and employees seriously”

Managing Director
Jonathan Reid