

► J & E Hall CO₂ system installed at food processor

A new low carbon CO₂ refrigeration system from J & E Hall is helping a leading food processor expand production, cut global warming emissions and meet the challenge of the F-Gas Regulation step downs.

For more than 100 years, Campbells Prime Meat has gained a fine reputation for supplying top quality products to customers in Scotland. There is no production line and meat is butchered in a traditional way by hand. To cope with a growing demand for its meat and fish products, Campbells has built a new freezer room at its processing plant at Linlithgow near Edinburgh.

A temperature of around -18°C keeps products in perfect condition before they are sold to customers. Two 20 kilowatt J & E Hall CO₂ refrigeration packs support the freezer room to ensure that temperatures are maintained at the correct temperature.



The F-Gas Regulation is having an increasing effect on the food processing industry and forcing installers and end users to switch to low global warming potential refrigerants. CO₂ is a natural refrigerant with zero global warming potential which makes it a good choice for the food processing industry. CO₂ has a wide temperature range which also makes it a versatile refrigerant. Commercial off the shelf equipment also allows installers to consider CO₂ systems as a viable option for food processors.

J & E Hall has a long history of providing bespoke refrigeration solutions for the food processing industry and their reputation for innovation, reliability and good customer service persuaded Campbells that they were the right choice for the job. Improvements in CO₂ technology now allow this equipment to handle with ease fluctuations in ambient temperatures, and issues with high pressures, which in the past had been associated with CO₂ systems.

Gary Barrett, J & E Hall Glasgow Centre Supervisor, took the lead on the project at Linlithgow. He said: "CO₂ technology has moved on so much in recent years that we were confident that this natural refrigerant would do a good job for Campbells. CO₂ systems are now cheaper to install and these two CO₂ packs were a long term solution which removed the worries of the F-Gas Regulation and constant concerns about leak testing."

CONTINUED...

Campbells needed to double their capacity for frozen storage. The company had been using a smaller dispatch freezer but increased demand for frozen food meant that there was no capacity to handle growing orders for burgers, sausages, haggis and black pudding. With traffic movements increasing in and out of the freezer it was crucial that greater capacity was found.

The new refrigeration packs on site work directly with the evaporators and no intermediate cooling is needed which made it easier for the system to be installed and commissioned. The J & E Hall team did consider HFC and ammonia-based alternatives for the system but the versatility and low global warming potential of CO₂ won out at the end of the day.

The customer is delighted with the new freezer room and the new refrigeration system, as Stephen Sweeney, Finance Director of Campbell's Prime Meat, explained: "We did some research in the industry and J & E Hall came very highly recommended. We had used other refrigerants on site but CO₂ with its green credentials proved to be the most attractive option.

"We were looking for a contractor who could deliver the job on time and on budget but also bring some imagination when required. This led to us going for the CO₂ option recommended by J & E Hall instead of the high global warming potential gases which we had used on site in the past. An important aspect of this was that economically it was the best bet for us as we would not have to change the refrigerant again in the near future when the legislation is updated."

J & E Hall was one of the first refrigeration installers to recognise the potential of CO₂ in the food processing industry and the company believes that this natural refrigerant has a big future as the pressure on end users to be more carbon friendly continues to grow.



Ref: APRS_campbellsmeat_1.0_0820