



BAR FARM – CHILLED DISTRIBUTION CENTRE

INNOVATE CENTRE

A new, state-of-the-art, chilled distribution centre, which opened in October 2016, has been nominated for an RAC Cooling Industry Award in the 'Environmental Collaboration of the Year' category. The centre was designed by FJB Systems for the distribution & refrigerated storage operator Turners (Soham) Ltd at its Bar Farm depot in Bicker, Lincolnshire.

The centre has a number of innovate and modern features which make it one of the most efficient and environmentally friendly refrigerated distribution centres in the UK. After planning permission was agreed to in 2014, work started in November of last year and is on schedule for completion as expected.

FJB Systems was founded in 1990 as an independent firm of designers, engineers, consultants and technical specialists offering turnkey design, architecture & project management services to the food and temperature controlled industries. The business has worked on projects both in the UK and overseas.

THE CENTRE HAS A NUMBER OF INNOVATE AND MODERN FEATURES.

Edwin Bowater, partner at the company, talked to Premier Construction about the importance of the project and why the new centre stands out from competitors:

"Turners purchased the Bicker site in 2012. The facility incorporated refrigerated cross-docking, fruit packing & some storage. However, the local growers and the retailers are requiring refrigerated storage & picking facilities closer to the source of production, so that product can be both stored and then picked & distributed at source.

"The existing site just didn't have that capability, so it was a very important project to cement the site's future. Turners were committed to investing in the site and creating a facility that could handle these added requirements that the retailers need."

At 6,000m² the facility incorporates a number of features including a refrigerated marshalling area, 3 bespoke chilled chambers and a 5,000 pallet storage capacity. The facility has multi-temperature control which enables bespoke storage from +10C up to +20C. High efficiency

	WISBECH ELECTRICAL LTD	<ul style="list-style-type: none"> ▪ Design ▪ Installation ▪ Panel Building
<p>"COME TO US, WE'RE WELL CONNECTED!"</p> <p>PROUD TO BE ASSOCIATED WITH BAR FARM - CHILLED DISTRIBUTION</p> <p>TEL. 01945 474233 - FAX. 01945 466988</p> <p>www.wisbechelectrical.co.uk</p>		

H.H. ADKINS

(CONTRACTORS) LTD.

Builders and Contractors

Successfully completing all types of construction projects throughout Lincolnshire over the past 71 years

We are pleased to have been entrusted as Principal Contractor for Turners new facility and wish them every success for the future.



Wyberton West Road, Boston, Lincs. PE21 7JU

Email: hhadkins@btconnect.com

Website: www.hhadkins.com

Tel: 01205 311477



Registered house builder

3CL

Telford England T: 01952 290941 www.3cl.com

Worldwide Industrial Refrigeration & Air Conditioning

Design Engineers and Manufacturers

3CL is pleased to be associated with the Turners new multi chamber chill store facility at Bicker, where **3CL** designed and installed the refrigeration services in conjunction with **FJB** Systems.

3CL, established in 1980, has been a leading provider of Industrial Refrigeration and Air Conditioning solutions. The company has recognised expertise in the design, installation, service and maintenance of environmentally responsible refrigeration systems. From state-of-the-art dairies in Saudi Arabia to Ice Cream factories in Vietnam, from Petro Chemical installations in the UK and the Middle East to large distribution Cold Stores, Ice Rinks, Climatic Wind Tunnels and Food Processing Refrigeration, **3CL** has a solution and expertise for every cooling application.

Our in house design team with over 250 years combined experience in the refrigeration industry can turn a client's requirements into reality, providing a sustainable cost effective solution for both the customer and the planet.

From our head office in Telford we are able to provide all our clients' service & tailored maintenance requirements using the most advanced resource management software.

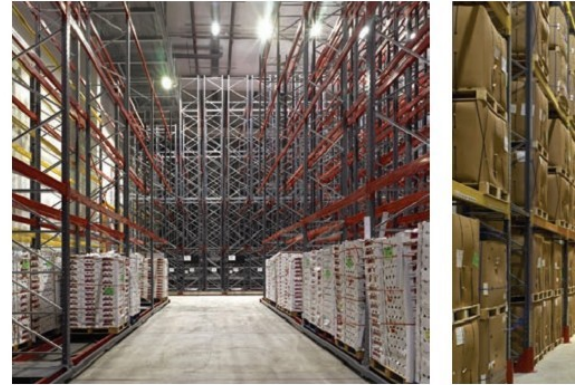
We are proud of our registration to the internationally recognised Quality Management Standard ISO 9001 – 2008 for "The design, manufacture, installation, service & maintenance of industrial refrigeration and air conditioning systems"

3CL is the provider of the engine & auxiliary cooling systems for the Bloodhound Project, the car designed to set a 1,000mph world land speed record in 2017.



WWW.PREMIERCONSTRUCTIONNEWS.COM

23



LED lighting is controlled by both motion detectors and natural dimming. One of the refrigerated chambers incorporates mobile racking, which provides dense packing and storage.

FJB's lead designer for the project, Joanna Frontczak, explained: "It's a high efficiency design designed as a 'single envelope' refrigerated store; this uses specialised insulation on the exterior of the building. This is a modern method of constructing a high efficiency refrigerated store. The facility incorporates rain water harvesting which captures all the water from the extensive roof and that is then recycled to be used on basic services like flushing toilets or cleaning lorries. The whole building has been constructed with efficiency in mind.

"It also has a high efficiency refrigeration plant that incorporates waste heat recovery to provide 'free heating' for the offices. The plant uses ammonia refrigerant which is extremely efficient and it's not going to deplete the ozone layer and doesn't contribute to global warming. It is one of the so called 'long term refrigerants'.

"The insulation panels are unique and use a special product called Kingspan QuadCore. This is a revolutionary fire-rated insulation panel which is about 20% more efficient than any other product on the market. This is the first building it has been installed on. There are provisions for solar panels to be put on the roof at a later date.

"The facility has also been designed for expansion at a later date. The whole idea is that the business model, and the reason for it being constructed, will allow the business to grow and then the building can be easily extended.

ONE OF THE MOST EFFICIENT AND ENVIRONMENTALLY FRIENDLY REFRIGERATED DISTRIBUTION CENTRES IN THE UK.

"Lastly, the refrigeration plant has been designed to not just be extended but also to consolidate all the other existing refrigeration plants on site. The Montreal Protocol is a global agreement aimed at phasing out refrigerants that are harmful to the atmosphere. The new plant will remove all these refrigerants from the site over time."

The main contractors on the project were local company H. H. Adkins. The company has been serving the building requirements of Lincolnshire since 1945 and in its formative years was heavily involved in the post-war housing boom.



While it would be understandable to expect a project of this complexity and scale to throw up a number of challenges, this has been far from the case. The original design has been carried out in full and the project is both on-time and on-budget. This was possible because FJB provided a turnkey fully-integrated design including architecture, structure, refrigeration, mechanical & electrical services – all these were carried out in-house. This meant that all aspects of the design 'meshed' and any problems were solved early and quickly, helping keep costs and time delays down. This process was greatly assisted by H.H. Adkins, who proved to be a highly experienced and pro-active contractor. Edwin added:

"From Turners point of view, it puts the Bicker's site on the map. It has gone from a small to medium sized vehicle distribution and refrigerated storage centre to a significant player in the local area. It consolidates the business there, making it viable with expansion possibilities in the future. From our point of view, we're very pleased because the building was economical to build and it is literally one of the most efficient cold stores in the UK."

The award nomination is reward for a commitment to finding a sustainable solution to a global problem. The plan now is for the environmental ideals developed and put into practice on this project to be copied across the UK.