



Case Study:

Organic Deli selects future proof refrigerant

Hay Deli is an independent whole food shop and delicatessen in the Welsh border town of Hay-on-Wye.



It works hard to supply sustainably sourced products to its customers and wanted the same approach when it came to installing a new cold room refrigeration system. It was also important for the upgrade to be as future-proof as possible as the size of the system required was too small for a natural refrigerant-based system.

Hay Deli sells a wide range of ambient, chilled (fruit, veg, cheese counter, deli counter etc) and frozen goods and in 2020 embarked on a renovation project to enlarge the shop floor and move the stock room, allowing a significant upgrade to the cold room.

The business asked its trusted refrigeration engineer, Martin Jones of Core Refrigeration, based in Eardisley, near Hereford, to quote for a new cold room system that would not only bring the walk-in up to current industry standards, but also offer the best affordable and future-proof solution.

Core Refrigeration recommended moving to a Marstair A2LsystemMatch as it represented a huge leap forward in technology with a very low global warming impact.

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The new system, proudly supplied by **Dean & Wood**, offers a 93% reduction in global warming potential (GWP) and comprises a SMC+40 condensing unit with MBMT125B evaporator match to fulfil the specification.

The charge required for the project was just 0.38Kg of R454C refrigerant and the charge for any system with a known pipe run can easily be calculated using the A2LsystemMatch Selection Tool, giving clients confidence that their selection can be applied both safely and in compliance with regulations. The A2LsystemMatch is the only solution which provides a complete system on A2L refrigerant for cold rooms. Installed using standard controllers, it is suitable for applications with pipe runs of up to 80 metres.

The Hay Deli installation also incorporated a Bacharach MGS-410 leak detection system as an extra precaution to alert against leakage within a closed cold room. The MGS-410 is designed to make compliance with mechanical equipment room and refrigeration safety codes simple and easy, saving time and money on equipment and installation. Using the MGS-400 app, users can intuitively use, commission and maintain their gas detection system without the need for specialty training or tools. A 5-year parts warranty is available following registration, with full technical support delivered by our **FridgeTECH** team.



Martin Jones, who installed and commissioned the system, said the installation was no harder than a standard fridge system. He added:

“The design team were excellent to work with and the product is good quality product and very easy to install. Marstair A2LsystemMatch gives clients an excellent choice to move towards a future-proof, environmentally friendly product.”

A spokesman for Hay Deli said: “The uplift in cost for this state-of-the-art unit was minimal and one we were very happy to pay, given the environmental benefit and the opportunity to future-proof our business. Since its installation, Core Refrigeration have been on site to make sure it’s running well and check things over and have always been happy.”

SPECIFICATION

- Cooling requirement: 2.5kW
- Design conditions: evaporating temperature -8°C, room temperature 3°C, ambient temperature 32°C
- Cold room size: 2.1m(L) x 4.00m(W) x 2.2m(H)
- Pipe run: 5m
- Pipe sizes: 3/8" expansion line, 1/2" suction line
- R454C refrigerant charge requirement: 0.38kg (with no addition needed)
- Single phase motor rated 20A fused supply



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