

M&S SIMPLY FOOD LEIGH



YOUR M&S

Refrigeration & Mechanical Case Study October 2013

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A1 Engineering
Solutions Limited

Design Brief

The project comprised of works associated with the full fit out of the food hall. The contract works were carried out in accordance with the Marks & Spencer food hall design format.

A1 worked in conjunction with the M&S Store development team and Emerson Engineering Consultants to deliver this project within budget and on schedule.



Refrigeration Equipment

- 1 off MK2 Hybrid Co2/R134a Pack / Pump Station
- 1 off Air Cooled Searle Condenser
- 2 off Condensing Units (R407A)
- Brooklands MK4 Cabinets
- Costan Frozen Food Cabinets
- Searle Cold Room Evaporators
- RDM Data Manager
- TQ GD233 Standalone Leak Detection

"Delivering the best solutions, safely, efficiently and ensuring Quality in all we do" Michael Atkinson, Managing Director



Project Overview Plant & Services

Refrigeration Plant

The sales floor display cabinets and one system of the provisions cold room were directly served by a common Co2 pumped system operating on a R134a primary DX system.

The provisions cold room was split across the Co2 plant and a R407a condensing unit. The frozen food cold room was operated by a 1off condensing unit. The condensing units and condenser utilised the CU/AV coil blocks. The Co2 pump station / pack unit and condensing units were located in the plant compound area along with 1x air cooled condenser.



Refrigeration Services

The Co2 wet suction and pumped liquid were run on radial ring main service. All LT liquid line pipework was fully insulated to maintain the super sub-cooling provided by the condensing units. The UCWAS services ran from the pump station assembly within the plant compound to a plate heat exchanger and then to the relevant sales floor units.



Project Overview Cabinets & Cold Rooms

Refrigerated Display Cabinets

The new food hall comprised of Brooklands MK4 cases and Costan frozen food mobile cases. The Brooklands cases required an under case warm air supply system which operated via heat reclaim from the refrigeration system pumped by a water pump station.



Cold Rooms

The evaporators in the provisions cold room were split across the systems, one on a condensing unit and the other connected to the Co2 pump station / pack R134a plant. The frozen food cold room was served via 1x R407A condensing unit.



What our customer said:



Peter Garner – Marks & Spencer

“A1 have proved themselves to be a competent and diligent contractor for Marks and Spencer, their work has been delivered to a high standard with quality being the focus. Their delivery of M&S high profile stores has surpassed performance expectations. A1 has proved itself as a growing contractor with a bright future”.



Our vision at A1 is to create long term strategic partnerships with our key customers, with these partnerships being built on mutual trust and understanding

