



MATADOR brings a world class refrigeration solution to Pick n Pay The Falls

Pick n Pay and Matador always work together towards a common goal of finding optimal refrigeration systems that provide reliable, cost effective, and energy efficient installations for the Pick n Pay group. The design for The Falls, their flagship store, was a challenge focussing on energy efficiency and utilising the latest state-of-the-art technology and engineering available.

The refrigeration installation at The Falls store is a R134/CO₂ Sub-Critical Cascade-type System.

Matador have consistently shown that correctly designed systems using the latest technology with quality equipment and installation will out-perform cheaper installations, both in maintenance and energy usage.

INSTALLATION

Medium temperature system

The medium temperature system operates on R134a refrigerant with a suction temperature of -10°C and condensing at the design condition of 43°C. The system has two multiplex racks fitted with six Bock-type HGX6/1410 eco compressors. The refrigeration requirement for the R134a system is 648.77kW split over the two multiplex racks, one of the biggest systems installed by the Group. The unique design allows for cooler liquid refrigerant being supplied to the evaporators, maximizing their efficiency and contributing to the already energy-efficient plant.

Low temperature system

The CO₂ low temperature system operates at a design condition of -32°C suction temperature, condensing at -5°C. The condensing of the low temperature system is done via a plate heat exchanger on one of the medium temperature systems. This is known as a cascade system. The low temperature system has one rack with three Bock-type HGX22P/125-4 compressors, operating in a sub-critical condition. The system capacity requirement is 70.9kW.



Energy efficiency

The plant operating conditions recorded to date:

	Minimum	Average	Maximum
kVA	80	150	235
Amps	120	240	360

The connected load for the entire refrigeration plant is 800A per phase.

As one can see from these figures, that were monitored during both average summer conditions and high ambient temperatures of up to 34°C, that the running conditions of the system are very favourable for energy savings.



ABOUT MATADOR

With more than 50 years of experience, Matador will provide the refrigeration solution and maintenance plan to suit your requirements. We have associates countrywide to ensure that, wherever you may be located, you will get the best service available.

Contact us at ...

0800 00 1324

www.matadorsa.com
gfn@matador.co.za

