

DuPont™ ISCEON® MO99™

CASE HISTORY

DuPont™ ISCEON® MO99™ Allows for Ease of Conversion in R-22 Supermarket Retrofit by Thompson Mechanical



Background

Thompson Mechanical Corporation is a premier HVACR contractor serving the Chicago area since 1948. They were contacted by a major supermarket chain for assistance with an R-22 retrofit to ISCEON® MO99™. Tony Thompson, project manager, Thompson Mechanical, has led many retrofits in his nearly 30 years of supermarket refrigeration experience. However, the ISCEON® MO99™ retrofit was a pleasant surprise for Tony.

ISCEON® MO99™ is a retrofit refrigerant that combines the pressure-enthalpy characteristics for R-22 with mineral oil compatibility in a unique refrigerant that can be used to replace R-22 in air conditioning and refrigeration equipment covering a wide range of evaporator temperatures.

Project details

According to Tony, the retrofit was straightforward and simple. All that was required was to remove the R-22 refrigerant; change the critical seals such as Schrader valve cores; change the filter driers; and as a precautionary measure, change the seal on the receiver. The crew then recharged the system with ISCEON® MO99™, started it up, and monitored the system for leaks. The system has been running with no problems ever since.

The retrofit system included both low- and medium-temperature racks with Copeland® brand compressors and Sporlan TXVs. The low-temperature rack provided cooling for a frozen food coffin, a bakery freezer, and several glass door frozen food cases. The product refrigeration included multi-deck meat and produce cases.

Results

The store downtime was approximately three hours. "Minimizing the downtime was very important to us, as we didn't want to inconvenience the store in any way. There were no sales interruptions or issues with food going bad," Tony said. "The store is running at cooler compressor and lower head pressures, which will result in slower oil breakdown and less wear on the compressor," he continued.

Tony marveled, "The biggest surprise to us is that there were no leaks at all. This was amazing, as we typically experience multiple leaks with R-404A conversions. In addition, the ISCEON® MO99™ retrofit was less costly due to fewer changes to the system."

Conclusion

The supermarket maintenance supervisor commented, "It was a first-time experience and the retrofit went very smoothly. It's been several months now with no issues. ISCEON® MO99™ seems like a good substitute for R-22."

Tony stated, "It was a good conversion and I would definitely recommend ISCEON® MO99™. I think there is going to be a high demand for MO99™ in the air conditioning market and a need for a convenient and cost-effective 'drop-in' type refrigerant. MO99™ could be the refrigerant of choice, something quick and easy. The best part was the ease of conversion."



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For more information on DuPont™ ISCEON®, or other DuPont Refrigerants, please contact your local representative.

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