

DuPont™ ISCEON® MO99™

CASE HISTORY

Engineering and Refrigeration, Inc. Experiences R-22 Retrofit Success at Village Super Market



Background

Engineering and Refrigeration, Inc. (E&R) of Jersey City, NJ, is an HVACR company that has been in business for 75 years. E&R recently completed a retrofit from R-22 to DuPont™ ISCEON® MO99™ for Village Super Market, Inc. in West Orange, NJ. Paul Albietz, E&R service manager, described the ISCEON® MO99™ retrofit experience.

Paul said, "I was looking for a replacement for R-22. Our customer depended on E&R to find the best solution available on the market. The ideal product had to be easy to convert, require minimal system changes, be energy efficient, and an overall good choice for the customer."

E&R looked at the ISCEON® portfolio of products, and chose ISCEON® MO99™. This refrigerant combines R-22 pressure-enthalpy characteristics 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. In a retrofit using ISCEON® MO99™ the steps taken include recovering the R-22; replacing critical seals; charging the refrigerant; and restarting and monitoring the system for potential leaks.

Paul explained the simplicity of an ISCEON® MO99™ retrofit. He said, "I've worked on other types of retrofits in the past, however, the experience with ISCEON® MO99™ was different. With ISCEON® MO99™ less time was required. It was a much smoother retrofit with no oil change, no TXV change, and no set point changes. A limited amount of food had to be removed from the cases since the system downtime was minimal. In previous 404A retrofits, we would be down 8 hours or more per day over a two-day period of time. In some cases we would have to remove most of the food from the cases for the retrofit."

Project Details

The retrofit consisted of three medium temp racks, switching from R-22 to ISCEON® MO99™ using three technicians. The systems are eight years old and include a mix of supermarket refrigeration equipment: walk-in coolers; coffin and multi-door cases; and a variety of product refrigeration (meat, produce, dairy and deli).

Results

Paul asserted, "This was as close as you can get to a drop in. The only seals that were changed were the Schrader valve cores and the level gauge on the liquid receiver."

Upon start-up after the retrofit, each rack system charged with ISCEON® MO99™ pulled down quickly, with case temperatures and operating parameters comparable to R-22 performance.

Conclusion

Paul said, "We received help from DuPont throughout the entire retrofit. They steered us in the right direction and the retrofit guidelines provided were very helpful. It was smooth going and met our customer's expectations. We've received no calls or complaints about case temperature issues since the retrofit. We hoped it would go this way, and it did."

When asked what Paul would tell anyone considering an ISCEON® MO99™ retrofit, Paul answered, "Go for it! It was very easy and seems to be working out well for us. It was a quick and simple switch."

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

DuPont Refrigerants
Chestnut Run Plaza 702
Wilmington, DE 19880
Tel: 877-683-3566

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