



“Honeywell’s fully automated Ekoflush™ technology, combined with Solstice® PF-C, delivers the high quality cleaning performance we need for our air conditioning system maintenance. The closed circuit design offers significant productivity gains - we can recycle the solvent for up to 20 flushes and our technicians can get on with other work while cleaning is in progress.”

- Mr. Mahmoud Fadel, Assistant General Manager, Al -Asasyah

OPPORTUNITY

The phaseout of R-141b in Saudi Arabia sent air conditioning companies searching for an alternative system cleaning solvent that would be safe, effective, environmentally-compliant with the Montreal Protocol and cost-competitive. Without such a replacement, the market faced significant disruption to customer operations and a spike in costs during the transition period.

SOLUTION

Continuity of customer service was key for Al Asasyah (Basic Electronics Co. Ltd.), one of Saudi’s leading A/C systems providers. The company found a solution to its needs in Honeywell’s Ekoflush™ automated and self-contained A/C cleaning system, which delivered the desired performance using Solstice® PF-C, a fourth generation, non-ozone-depleting, ultra-low GWP and high performance solvent.

Ekoflush™ – the systematic approach to A/C cleaning

When Saudi Arabia announced the phaseout of R-141b under the Montreal Protocol because of its high ozone depletion potential (ODP), air conditioning companies needed an alternative solvent for system cleaning.

The restricted supply of R-141b in the run-up to the ban pushed prices higher, and some solvents marketed as replacements were flagged as potentially damaging to A/C components and possibly harmful to technicians.

Al Asasyah (Basic Electronics Co. Ltd.) – a company with exclusive agency representation in Saudi for global brands such as GREE®, BASIC® and Fuji® Electric – turned to Honeywell for a long-term solution that would be safe, environmentally-compliant and cost-effective.

“As a leading supplier of A/C systems in Saudi Arabia, we understand the importance maintaining cooling efficiency in challenging climates,” said Mr. Abdullrahman M. Al Arfaj, Executive Manager Al -Asasayah. “When the phaseout of R-141b was announced, we began searching for a sufficiently strong but environmentally-compliant solvent and a cleaning process that would flush air conditioning effectively and safely. Critically, the solvent needed to be compatible with current A/C system components, refrigerants and lubricating oil.”

CASE STUDY RESULTS

A MORE EFFECTIVE CLEANING SOLUTION

Honeywell introduced Al Asasyah to Ekoflush™ – a self-contained and automated flushing system for A/C and refrigeration equipment using Honeywell Solstice® PF-C, a fourth generation solvent which is non-ozone-depleting and has an ultra-low GWP of 1.

Ekoflush with Solstice® PF-C provides highly effective and fast closed-circuit cleaning, in contrast to the labor-intensive open flushing associated with R-141b. The system uses a high-pressure, pulsing abrasive degreasing action to remove even the most stubborn contamination from equipment crevices and corners.

Technicians simply connect the A/C equipment to the machine using the supplied hoses and start the automatic flushing cycle, meaning they can work on other tasks throughout the process. Once the cleaning cycle is finished, they disconnect the hoses and, because everything is contained within the machine, there's no risk of exposure to contaminated cleaning fluids.

Uniquely, Solstice® PF-C is then distilled within the machine, enabling the solvent to be recycled for up to 20 flushes.



Honeywell Ekoflush Machines

A MORE PRODUCTIVE FUTURE

Ekoflush™ with Solstice® PF-C is proven to deliver extremely efficient cleaning performance across all A/C and refrigerant systems, is fast, clean and safe to use, and satisfies environmental requirements.

Critically, because the solvent can be recycled, the cost per flush is lower compared to R-141b.

“Ekoflush™ with Solstice® PF-C provides us with a long-term A/C system cleaning solution that offers significant advantages over R-141b open flushing. The Honeywell system performs well and not only reduces operational costs over R-141b, it also improves the productivity of our technicians, who can get on with other work during the automated process.” - *Thomas Rejano-Lamoc, Maintenance Supervisor.*

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2623 FP v4 | August 2018
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