

A-Gas rises to the bake-off challenge

A Yorkshire baker has undergone an R22 change-out in record time, thanks to new technology that speeds the process of conversion. **RAC** reports

Many companies are now in the process of migrating away from R22 refrigerants in order to comply with the 2015 phase-out of HCFCs.

Yorkshire baker Speedibake has already completed the process and taken advantage of A-Gas's new Portable Environmental Recovery System (Persy) to ensure a smooth transition.

Speedibake is part of Associated British Foods and employs 600 people. Since 1984, it has become one of the leading producers of bakery products in the UK with a range of more than 200 products and turnover of about £70m.

Speedibake operates from two bakeries in Wakefield and Bradford, baking own-label goods from muffins to doughnuts to speciality breads for retail and food service customers.

Any downtime in production can have a major impact on the business, so when the company decided to look at various alternatives for replacing its R22 systems, this was an overriding consideration.

In consultation with its refrigerant contractor GEA Refrigeration UK, Speedibake assessed its available options: installing new plant was a logical, if expensive solution but GEA recommended recovering the R22 using the A-Gas technology and replacing it with RS-52 – one of the few refrigerants suitable for flooded applications.

A-Gas had extensively trialled Persy at its Bristol plant and various customer sites. The results showed that use of the system enabled refrigerant recovery in far quicker time than traditional 'push-pull'



Downtime needed to be kept to a minimum during the conversion

methods. A three day process can be reduced to as little as a single day (dependant on system size) using the portable system.

Refrigerant recovery was an attractive proposition for Speedibake and once its project manager Steve Young was satisfied with the advantages of using RS-52 and the minimal impact using A-Gas' recovery system would have on production, the process was then scheduled to take place

over a weekend. To minimise disruption to the more than 900 tonnes a week production volume, Speedibake planned a two-day shut-down, stepped up output and put in place a production contingency plan as a precaution.

During the R22 conversion, A-Gas recovered 2.1 tonnes of refrigerant. After an oil change, Speedibake's chillers were recharged with virgin RS-52 and the



entire system was back up and running in 13 hours.

Dave Back, sales and contracts manager for GEA, explains the process: "We decanted 2 tonnes of refrigerant within a couple of hours and within two hours after that the new refrigerant was being charged, with the result that the contingency plans did not have to be implemented."

Mr Young adds: "The recovery system worked very well, as we could isolate a small corner of the goods yard in which to keep the recovery drums, while positioning the recovery system immediately outside the plant room. The speed and efficiency of the refrigerant transfer was very impressive."

Speedibake is enthusiastic about the benefits of migrating to RS-52. "We were expecting to see a net increase in the power consumed, compared with R22," says Mr Young. "But because of an increased capacity of the system by the refrigerant, the running time of the plant has been reduced."

Roger Smith, A-Gas refrigerants product manager, says RS-52 has proved a useful R22 replacement: "RS-52 has a low glide value and can reduce energy consumption. Although designed as a replacement for R502 and HCFC blends such as R402A and R408A, it is also an excellent replacement for R22 at low temperatures where the system is designed to withstand R502 pressures."

"RS-52 offered an ideal solution for Speedibake and using our portable recovery system meant that we could offer a flexible self-contained approach to conversion." **RAC**

The qualities of Persy

A-Gas designed and built Persy in-house to meet the needs for a portable, but high capacity, recovery system.

While it was designed principally for supermarket retrofit applications, the company says it offers a number of benefits that are also suitable for a wider range of applications and can also be used for system decommissioning and recharging.

The equipment is portable and compact, has its own

power supply and can recover refrigerant up to 10 times faster than standard recovery equipment.

Specifications include:

- 1,500 kg/hr recovery rate (liquid push pull)
- 140 kg/hr vapour recovery rate
- 100 cu m/hr integral vacuum pump
- 500 kg integrated receiver
- PLC controlled
- Own dedicated power supply via a generator