

# Gluten-free, the Finnish way

NOWHERE IN THE WORLD WOULD YOU FIND A HIGHER CONCENTRATION OF BAKED PRODUCTS IN RETAIL TRADE THAN IN FINLAND



**+** The third-largest bakery in Finland has found its own very special answer to this challenge. This bakery distinguishes itself by offering gluten-free baked goods that are sold as frozen products in the supermarkets. The market for baked goods in Finland is dominated by two international groups which amount to about 60% of the market. (By the way, the retail trade in Finland shows a similar concentration. Kesko (K-group) and Inex (S-group) together account for about 70% of the retail sales.) Whoever wants to exist beside them has to stand up and be counted.

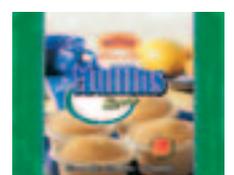
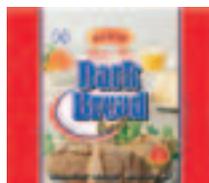
Moilas Oy – Finland's third-largest bakery, located in Naarajärvi in the centre of the Finnish lowland plain which is full of lakes – does this. The

family company has joined up with three other family bakeries to form a production and supply organization which makes it possible for this group to be represented virtually all over Finland with its own shops or in supermarkets.

Moilas business with its 20m Euro turnover and a staff of 130 rests on four "pillars". Freshly made goods which are delivered within a 200 km area around the respective bakeries and into the capital Helsinki make up 38% of the total sales. Bake-off goods and pizza, mainly distributed via wholesalers, are responsible for 35% of the sales. Incidentally the most important products in this category are the Karelian Pies. These are very thin dough bowls, specially shaped from

dough which is only 1.2 mm thick, made from a 50:50 rye/wheat mixture, filled with cooked rice crème and then baked. A special production line was designed and set up for just this product with an hourly capacity of 12,500 pieces which is in use virtually around the clock. For more than 50 years, rye has been one of the main raw materials used at Moilas. The company's rye breads are also exported.

The forth range that Moilas is known for, even beyond Finnish borders, comprises gluten-free baked goods. This started in 1985 with the development of industrial production methods for gluten-free products designed for people suffering from celiac syndrome, also known as gluten intolerance. Today, the product range consists of 35





++ figure 1 Gluten-free small baked items with apricot filling a very popular

different products which are not exclusively sold on the domestic market but are also exported into eight other countries, including the UK and the Benelux countries. Sales of these products are currently rising annually by 30%. For some months now, even McDonalds has offered gluten-free baked goods in Scandinavia.

This has been sufficient reason for general manager Juha Moilanen and production manager Veikko Hokkanen to install a second line in the building for the exclusive production of glutenfree products. Currently one multi-functional line is running at full speed.

In general the doughs containing rice, corn, potato, buckwheat, tapioca flour or guar gum or mixtures excluding wheat flour are very soft. They are not kneaded but whipped, and they are not rolled the classical way, but passed through an extruder. They are as liquid as pancake batter and everything that should rise must be baked in pans. The dough moves through a multi-level proofing unit into a directly heated DenBoer oven and after that the products are cooled down and frozen in spiral systems by Vulganus (see boxed item).

Vulganus, one of the very few Finish manufacturers of food production equipment is a regular supplier to Moilas and has participated in the planning and equipping of all of Moilas' lines. The belts in the spiral towers run on rods and offer stability and perviousness to air. For gluten-free products, perfect moisture control is of high importance.

The products are always packed in household sizes and are offered in the supermarkets and health food stores in special freezers all located in the bread departments. All freezing cabinets are provided by Moilas because, according to Hakkanen, this ensures that the retailers offer the entire product range and thus generates customer loyalty. +++

### Vulganus Oy

The Finnish company from Nastola near Lahti supplies spiral plants for proofing, cooling and freezing to the food industry. The main focus is placed on the baked goods industry. Vulganus has representatives and sales offices in more than 20 countries. For the last two years, the proofing plants have been exclusively



equipped with cold water foggers that have replaced the steam foggers. The proofing plants are equipped with a microprocessor control which keeps the proofing temperature at a constant level independent from the

outside temperature. According to director Mikko Lehtinen, when compared to the hot steam foggers, the system saves 80% of energy and service costs because neither water heaters nor a pipeline system are required any longer. The entire system, which only allows the introduction of filtered air, is made from stainless steel, in compact design and can be easily opened, removed and cleaned.

Vulganus' proofing plant with cold water fogger as well as their Arcticline freezer was also included in the Hygila project. The project was initiated in 2001 by the Finnish food industry, several machine manufacturers, the University of Helsinki and the VVT (Technical Research Center of Finland) with the goal to improve the hygiene standard of food production machines and equipment.

Lehtinen said that "the interdisciplinary approach of Hygila and the combined expert knowledge of the participating groups of the food industry, scientists and engineers have helped us to study in practice the behavior of microorganisms in different environments and the different cleaning and drying systems for belts." [www.vulganus.fi](http://www.vulganus.fi) +++