

Competence centers and key production areas

THE KAAK GROUP IS NOW ONE OF THE WORLD'S BIGGEST SUPPLIERS OF BAKERY TECHNOLOGY, AND HAS BEEN SUCCESSFUL EVEN DURING THE INDUSTRY-WIDE RECESSION – DUE NOT LEAST TO PERMANENT STRUCTURAL ADJUSTMENTS. KAAK IS JUST NOW IN THE PROCESS OF FOCUSING OVEN CONSTRUCTION IN ALA, NORTHERN ITALY. HILDEGARD M. KEIL TALKED TO **LODEWIJK VAN DER BORG** AND **AART JAN HARTMAN**, BOTH MEMBERS OF THE EXECUTIVE MANAGEMENT



++ Lodewijk van der Borg



++ Aart Jan Hartman

+ **Keil:** Mr. van der Borg, Mr. Hartman, you have just announced that you will concentrate oven construction in Ala. What thinking lies behind this decision?

+ Van der Borg: It relates to excellence and efficiency. For every customer, we want to build the solution that is technically and technologically the best for him. This involves not only heating systems but also energy efficiency, fluid flow technology, materials science, control engineering and much more. The Kaak Group has a very large amount of knowledge in all these areas. We build thermo-oil, high temperature, impingement, cyclotherm and directly heated ovens. It would be simply stupid not to pool this knowledge and allow cross-fertilization. At the same time it is a question of building as efficiently as possible, which is then reflected in the prices.

+ Hartman: In Ala we focus purely on manufacturing ovens, i.e. simply on machine building. Everything else that is important for the client's decision, such as advice, development,

service etc. remains where the competence for it is located, e.g. in Hamburg for the thermo-oil area. Ala produces solely for Hamburg, and of course there will be a lively exchange between Hamburg and Ala. That's all part of the business.

+ Keil: Ala concentrates on building big ovens. What is the situation with multi-deck and wagon ovens?

+ Van der Borg: That is and remains a market that we will always supply directly from Daub in Hamburg, because these ovens are used mainly in the German-speaking countries, whereas the big ovens serve an international market.

+ Hartman: We also have centers of this kind in other regions: dough preparation and dough processing in 's-Hertogenbosch, logistics systems including proofing plants, i.e. Bakeware, Multi-parts etc. in Terborg, and Teflon coating in Contres, France. This organization has turned out to be a huge success both in development and in sales, and above all in customer satisfaction.

+ Keil: Regarding 's-Hertogenbosch, the construction of Kaak's first kneader, a high-performance horizontal mixer operating on the Chorleywood principle, was announced there shortly before the iba. What has become of this in the meantime?

+ Hartman: Vorsprung durch Innovation works extremely well, and the mixer is an innovative further development of the Chorleywood technology. Seven machines have already been sold in the five months since that time.

+ Keil: That sounds like success, but it's a mixer specifically for big lines. Will Kaak also build other mixer sizes and mixer types in the future?

+ Van der Borg: We are currently testing the possible applications of this mixer technology for other areas and capacities. However we don't yet have any concrete plans for new types, but it is quite certain that we will not build any spiral or wendel mixers.

+ Keil: Centralizing production according to topics or areas of technology is a structural decision. What is the situation regarding the organization of research and development in the group?

+ Van der Borg: All the developments are carried out in the companies that have the competence for them, for example, at Daub in Hamburg for thermo-oil oven construction. In addition we have a network throughout the entire group in the

R&D area. Organizationally this department reports directly to the group, not to Kaak Netherlands. Its responsibility is to network and also, to some extent, to steer and arrange, to organize information flows, and finally to ensure that the detailed knowledge is available to all those in the group who can benefit from it.

+ Keil: In the last three to five years the Kaak group has brought a whole series of innovations onto the market, the impingement oven, dough sheeting plants from DrieM, hybrid ovens, the mixer, Daub's push-through oven... Which of these do you see as a milestone?

+ Hartman: All of them! And you forgot a very important one: the development of our hygiene concept. The long-term strategy of vertical integration underlies all of these developments. We want to be able to offer our customers an all-inclusive package from silo to HGV, and we see markets for that as well.

+ Keil: Can you express that more specifically? Which markets are developing, and how?

+ Hartman: There will be a huge increase in bread consumption throughout the world. Consumption in China has grown from approx. 1-2 to 4-5 kg per head within approx. 10 years, and the country has a population of 1.2bn. We are experiencing the rapid build-up of a baked goods industry ▶

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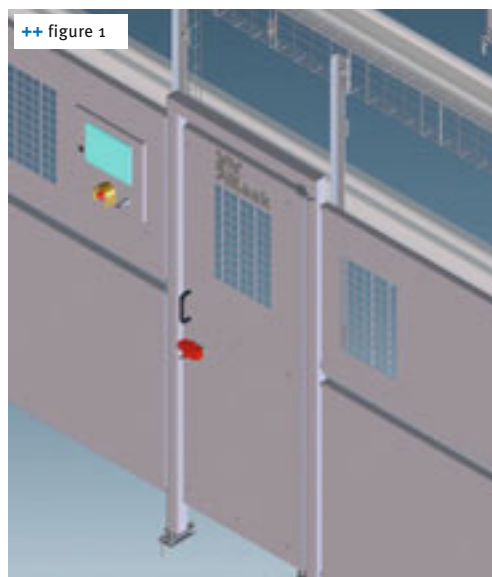


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++ figures 1+2

A new level of hygiene: the product is easy to clean, with 20 mm spacing; it has fewer feet (every 2m) which are adjustable; there are no plastic components and the cabling is integrated

**++ figure 1****++ figure 2**

in Latin America because more bread is being consumed, and artisan bakeries are almost unknown in countries such as Brazil for example. In Europe we are observing an increasingly rapid shift towards industrialized bakeries and the massive entry of trading groups and supermarkets into the production sector. In addition there has been very little investment in the Euro countries over the past three years,

R&D Coordination Department

One of the services the Kaak Group provides for its subsidiaries is a “Research & Development” Coordination Department staffed by four engineers. It has numerous functions. Firstly, it coordinates the development work in the group. It does this by calling all those responsible for development to a quarterly meeting at which each of them gives a presentation about their current work. Its self-concept as a group is strengthened at the same time through discussion and reciprocal visits, and the core of a shared development policy is defined. Secondly, the Coordination Department provides the subsidiaries with practical support in new developments, and monitors compliance with hygiene and mechanical engineering directives and with all the statutory regulations.

They also have the task of documenting all developments and concepts, and making these available to the subsidiary companies. In addition they are responsible for ensuring efficiency by standardizing components and design details. For example, this includes defining the optimum seal for each hole size and application, and calculating the optimum motor powers for defined applications and making these available in data bases. Quite incidentally this standardization has already enormously reduced the stocks held at all the sites, and in many cases in doubtful situations this enables subsidiaries to replace components quickly even on sister company’s plants. +++

so that area now needs to catch up. In Latin America, Russia and the Middle East we can see that industry groups who previously processed milk, fruit or meat are now complementing their product ranges with fresh and frozen baked goods which they will supply to the emerging trading structures. There is also a large amount of money on the move, coming from other, less attractive sectors looking for new investment opportunities, including the food industry for example. When I look at the projects being planned worldwide, there are over 30 % more of them when compared with a year ago. They will not all come to fruition, but there is a clear upward trend.

+ Keil: Will the Kaak Group benefit from that?

+ Hartman: We accepted over 6 % more orders in 2012 than in 2011, and achieved total sales of more than EUR 126m in spite of the Euro crisis and the economic crisis. However, only a very small proportion of this originates from the Euro area. The Anglo-Saxon countries, Canada and the USA as well as South Africa, Russia and Great Britain itself were strong in that year. Previously we recruited 70 % of our customers from the Euro area, whereas today 60–70 % come from the Anglo-Saxon countries, Latin America and Russia.

+ Keil: Does that mean your profit no longer depends on the development of the Euro but on that of the Dollar instead ...

+ Van der Borg: Our philosophy includes not allowing ourselves to become dependent on a few countries. We have specialist teams to analyze the “new” countries and develop new markets for us.

+ Keil: What effects do the shifts in the markets really have on your industry, i.e. on the bakery machine builders?

+ Hartman: As a consequence we are experiencing strong consolidation, and this trend is ongoing in parallel with the development in the baked goods market. The amount of outside capital in the industry is increasing, and is bringing with it different management structures, more transparency and tougher competition.

+ **Keil:** Times are changing. What effect is this having on Kaak?
 + **Van der Borg:** Today Kaak is led by a relatively young, open-minded management. In the past Terborg was the hub and all the other companies were satellites. Nowadays we deal with one another cooperatively on an equal footing, and that is as beneficial to the group as it is to our customers.

+ **Keil:** Mr. van der Borg and Mr. Hartman, thank you for the interview. +++

Hygiene in design and construction

During the past few years, in cooperation with practitioners of several major industrial clients, the Kaak Group has systematically transferred every design, every concept and every fabrication process through several stages to a new level of hygiene. For example, only closed profiles are used today, and all angles and inclines have been modified to prevent as far as possible any dust or water lying or remaining on them. Sensors, regardless of where they are, have been given a hygienically safe, standardized and thus easily exchangeable fastening. As a matter of course the hygiene suitability, pressure resistance and dimensioning of all components, even hoses and valves, have been checked and in case of doubt improved.

The design as a whole was also thoroughly scrutinized on the test bed by the work group consisting of bakery practitioners and mechanical engineers. One example of the changes resulting from this is the new needle depanner, in which all that is still located above the production line is the thing that is absolutely necessary there, namely the head with the needles. Nowadays everything else is situated alongside the line, so nothing can drop or drip onto the line, even in case of doubt. This has had a nice side-effect: the head is interchangeable, and can even be exchanged for a suction depanner. A second example extending far beyond the narrow aspect of hygiene is the DrieM round moulder which, in connection with optimizing the air pressure, has acquired the ability to adjust the pressure exerted on the dough piece during the moulding process throughout the moulding time, exactly as also happens during moulding by hand.

All plants and machines are divided into categories depending on whether the machine is designed to be cleaned dry or can be wet cleaned, whereby the water pressure used must not exceed 20 bar. There is a reason for avoiding high pressure cleaning: there is a risk of corrosion if water hits cold motors. Instead Kaak relies on the modular construction of plants and machines, allowing components in contact with dough to be dismantled easily and taken to a washing area. The individual components are unmistakably identified, and protection against installation in the wrong place is ensured not only by the manual in the controller and by clear user instructions, but also by sensor technology that releases the machine for operation only if the parts are fitted correctly. +++

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