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Specialists in food processing equipment



### Pie & Quiche line When quality and quantity counts



# Rademaker: if you care for high quality pies

### The best solution for midsize to industrial bakeries

Thanks to Rademaker Pie & Quiche lines, you can produce pies of high quality in high quantities.

Pies are the gem of the Anglo-American kitchen. As far back as the 12th century, written sources mention 'pyes' as food item. Originally, the crust, made of water and flour, was hard and not meant to be eaten. The pastry shell acted as a baking dish. The top crust made sure that the contents stayed fresh over a longer period of time.

Nowadays, no feast is complete without pies. Savoury pies for diner, like steak and kidney pie and chicken and mushroom pie. Or sweet pies, for instance apple pie and cherry pie. For dessert or to accompany a nice cup of coffee or tea. In modern-times, pies with a tasty and crispy crust is an essential part of the treat. Rademaker Pie & Quiche lines help you to make pies your customers will always come back for.

# Excellent production quality

Rademaker produces Pie & Quiche lines for a very wide range of products. Since 1981, bakeries all over the world have been producing excellent pies using our equipment. Whether you want to produce industrial quantities of pies or a large variety of artisanal pies, we can provide you with the appropriate production line.

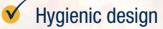
Our Pie & Quiche lines are renowned for their excellent production quality. Changing from producing one product to the other is done speedily. This ensures that your production process is very flexible and efficient.

The Rademaker Pie & Quiche lines are designed and manufactured according to the highest standards for safety and hygiene. They can be completely washed down and cleaned easily. Besides this the equipment is very durable and we are proud to have some of the first pie lines we have built, still in use today.

# Added value

Product quality, efficiency and flexibility
 Quick Change-over
 Various filling solutions available

Bespoke lay-out solutions



✓ Low cost of ownership

### Rademaker



## Perfect pie production



Products can be made in different foils, paper containers, metal baking trays, hoops, tins as well as indented baking trays. The whole line is designed to create flexibility, quick product change-over, easy operation and cleaning. For example: • The blocking and crimping heads are exchangeable at operator side by one person (4 & 7).

• The space underneath the conveyor in general is 250 mm, which enables good access for cleaning. • Relevant units are wheelable (2, 5, 6, 8).

### **Production process**

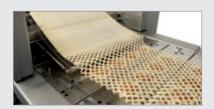
The prodcution process of our Pie/Quiche Line consists out of the following processes:



1. The conveyor is either applicable for platens or baking trays. The conveyor is also suitable for the dosing of cupcakes, cheesecakes etc.



2. The foil denester is provided with a vacuum system to ensure that the foil is correctly placed.



6a. Optionally you can integrate a lattice unit to the Pie line.





7. The servo driven crimping unit seals the lid to the base. The crimp decoration can be designed to your specifications. The easy exchange of crimping heads enables you to create a large range of different decorated products. The crimping head is also water heated.



3. Dough processing: the Rademaker stripfeeder and the guillotine ensure very accurate dough weight.



8. The **outfeed system** transfers the pies from the conveyor towards dedicated panels but can also be delivered with a set-up for offload to oven band, freezer infeed or trays.



 The dough billets are blocked to the desired shape without any scrap by a servo driven press. The blocking head is water heated for a precise and reliable operation.



9. Additionally an eggyolk sprayer can be installed. Optionally with air-knife for blow off of excess glaze



Rademaker supplies a broad range of depositors to allow an even wider range of fillings: liquid and semi-liquid or viscous materials, with or without chunks of meat or fruit.



9a. Another installation option is a strewing unit. Various dry toppings can be applied onto top of the pies.

The capacity of the pie line varies per size, dough type and filling <sup>[1]</sup> .	
Diameter 80 mm Diameter 250 mm Length of the line Product diameter Working width Working height	up to 20.000 pieces / hour <sup>[1]</sup> up to 5.200 pieces / hour <sup>[2]</sup> starting at 12,5 meters <sup>[3]</sup> 50 to 282 mm <sup>[4]</sup> 600 – 1200 mm <sup>[5]</sup> 950 mm
<ul> <li><sup>[1]</sup> Capacities at working width 1200 mm for products that do not require additional dwell time</li> <li><sup>[2]</sup> Capacity for 80 mm products for standard single execution operation at 28 strokes per minute. Capacity of 40.000 pieces per hour can be reached at tandem execution.</li> <li><sup>[3]</sup> Capacity for 250 mm products at 22 strokes per minute</li> <li><sup>[4]</sup> Alternative shapes &amp; sizes also possible in custom set-up</li> </ul>	

- <sup>(5)</sup> System at working width exceeding 1200 mm can be produced as custom project







6. If a lid is desired for the product, an extruder can be one of the options.



9b To optimize the oven or freezer loading a "marshalling" unit can be used. This unit enables you to increase the number of rows across the width on the following conveyors.

Products

# Wide assortment of products

With the Rademaker Pie/Quiche line you can make any products you desire. With the Rademaker depositor-range you can fill your pie or quiche with any kind of filling. While our Pie/Quiche line is developed to produce an extensive and international assortment of pies and quiches, we can take the extra step and apply one of the major strengths of Rademaker, namely developing customized modules tailored to your specific needs.

On this pages an overview of some products that our line can make.

# Pies • Fruit pies • Meat pies • Fruit pies • Short crust top • Family size pie • Rotary moulded top • Lattice top • Short crust top • Puff pastry top • Crumble top • Sugar crusted sweet pie

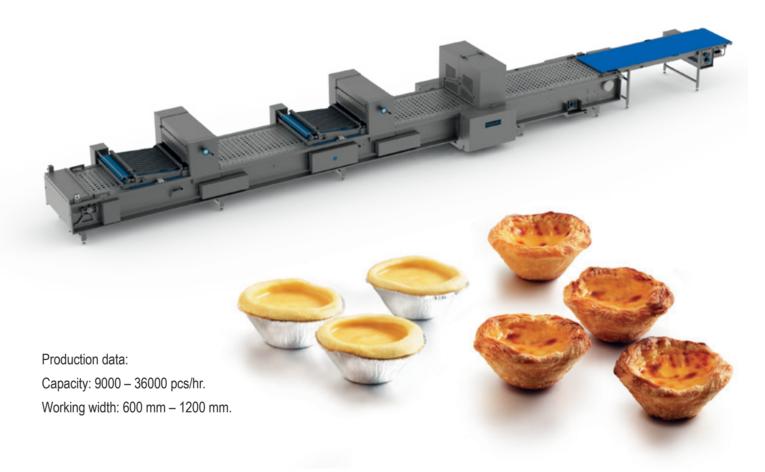




# Pastel de Nata / Egg Tart line

The Rademaker line is unmatched when compared to other lines in preserving the effect of the pastry crust layering and handling the special liquid filling that goes into the pastel del nata.

An egg tart / pastel de nata production line has some differences comparing a standard Pie production line. For example no strip feeder is required because the egg tarts are made of dough discs which are automatically cut from cylinders. These cylinders can be made on a Rademaker laminator and can be placed automatically or by hand in the egg tart pie line







Automatic foil dispensing

Dough feeding (manual or automatic)





Outfeed

Depositing



Automatic feeding dough billets



Liquid filling



Pressing



Endproduct

# Quality, efficiency and safety

### Product quality, efficiency and flexibility

The Rademaker pie and quiche lines are a perfect example of modern, industrial production lines. Robustly built for many years of trouble free production around the clock. The flexible concept of various components that make up the line configuration ensure that changing consumer trends can be adapted. The flexibility of the line is guaranteed, without sacrificing efficiency and high quality product output.



### Quick change-over

The line is designed to create flexibility, quick product change-over and ease of operation. For example:

- Relevant units are mobile.
- (see configurations page numbers 2, 5, 6 and 8)
- The blocking and crimping heads are quick to exchange.



### Various filling solutions available

Depending on the consistency and viscosity of the filling Rademaker has the ideal depositor for your product. Either a spot depositor, mohno pump or gearwheel depositor are used in combination with nozzles that can have both "shut off" and "blow off" functionality.



### **Robustness**

Focus on robustness during equipment design results in highly reliable industrial production and extreme durability. For example this Rademaker line is manufactured from stainless steel and other non-corrosive materials. Automatic greasing systems prevent possible damage to vital machine parts by automatically applying grease at the necessary time to those parts needing it this guarantees a longer life and greater reliability from your line.



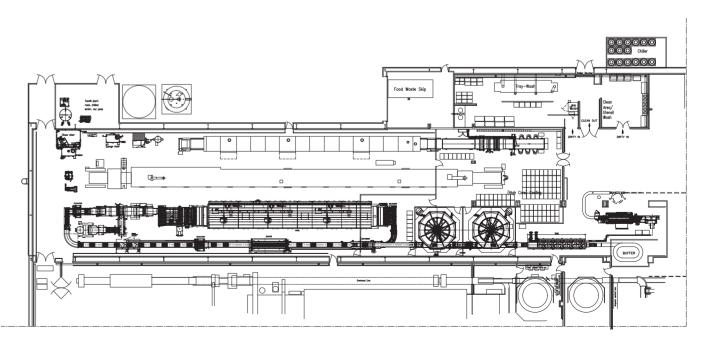
### Safety & easy maintenance

Essential parts can be easily removed this allows for easy access during cleaning and maintenance actions. Of course all moving parts are designed within the ergonomic Rademaker Sigma<sup>®</sup> guidelines with special focus on rounded edges and process visibility. Also the access to various key parts of the unit is controlled by sensors to guarantee the best possible operator safety.



### System integration & Turn key solutions

When a complete and efficient production plant is required, then the Rademaker Turn-key department steps in. Clients can utilize Rademaker's project experience to set up the most efficient production process solution. Our approach to system integration is bringing together the best for every single section of a production facility. The customer is provided with a turnkey solution that integrates the Rademaker production line with a broad range of auxiliary products and systems, including, mixing, handling equipment, product carriers from dough preparation to other process stages, ovens, cooling and freezers. Reliable suppliers are chosen with a proven track record in the bakery industry. Each project is unique and therefore a specific combination of equipment will be proposed to meet an optimal result.



### Hygienic design

The system is designed according to the Rademaker Sigma<sup>®</sup> design guidelines. These guidelines are directly derived from various high end requirements for hygiene & cleanability such as the GMA standard and EHEDG recommendation. With excellent machine surface finishing, tilted upper surfaces, rounded frames, food approved blue plastic parts and elimated hinges and bolts, the unit will meet the highest industrial expectations for hygiene.



# Customer satisfaction is key

Based on 40 years of Rademaker expertise, our production lines are considered as a sublimation of technological excellence gathered over time resulting with high product quality at the lowest possible cost of ownership!

### Unmatched 24/7 Service

Rademaker supports your production process every way we can, 24 hours a day, 365 days a year. Our service doesn't stop after the delivery and installation of your equipment. We can provide a full range of services to cover all system and process related issues through the operational lifetime of the machinery.

**V** 24/7 Service Helpdesk

**V** Customer Training

✓ Spare parts

Ungundan vafuuhinhi

- Upgrades, refurbishing & optimising
- Preventive and corrective maintenance

### **Technological support**

To be your partner for new product development and consultancy, we have, since 2006, opened the Rademaker Technology Centre (RTC). Here, the development process of a Rademaker production line starts. It features several pilot lines for any bakery product. The testing rooms are climate controlled, so the customer's production situation can be created. Rademaker technologists develop the products that the customers demand. Eventually, these products are translated into a Rademaker production line.





### Rademaker Academy: training & sharing know-how

Technology know-how is one of the key items that is required when a production line is installed, and the production process starts. More specifically the detailed know-how on sheeting processes, production line operation and dough processing are often lacking. This lack of know-how can result in problems affecting the overall cost and time to market. But also, raw material suppliers who see the traditional bakery industry shift more and more towards sheeting technology require more knowledge. This is why the Rademaker Academy started; to preserve and share bakery knowledge through education and training.

### Continuous improvement and innovation

10 Years after the formal start of the Rademaker Research & Development (R&D) Department, it moved to its own building; the Rademaker R&D Centre. It contains a dedicated working space for R&D, where modules, lines and processes are tested. The R&D Centre underlines the leading position that Rademaker occupies in the market in the field of innovation. Besides the fact that it expresses our dedication to development and innovation, it is also a promise. A promise to keep working on improving the machine performance and finding innovative, effective production solutions. To prepare ourselves for the future, setting up our independent R&D department is an important impulse. This way we can pro-actively approach the market and give founded advice towards our customers.









### Inhouse production

The complete production process of our equipment takes place in two state-of-the-art production facilities, covering a total of 20.000m<sup>2</sup>. The quality of our production lines is derived because the production team consists of our highly qualified craftsman and no concessions are made regarding materials used in our production lines.