

# Better Hygiene

Brück GmbH & Co. KG from Bad Camberg develops and installs suction and disposal equipment for the bakery industry with the prime aim of increasing cleanliness in companies.

Any incidental residues in bakeries may not only negatively impact the production process on the conveyor belts but, in certain circumstances, also the end product. Help is at hand here from the high-performance suction and disposal equipment built and sold by the mechanical engineering company Brück from Bad Camberg. The company dates back nearly 90 years with

the suction technology being first integrated into company operations in 1988 and disposal technology in 1995 by the current managing director Thomas Brück. "Since then we have been able to offer everything from a single source - from the point of entry through special cyclones to the disposal system" says Brück explaining his company philosophy. This idea seems to have been well accepted in the food

industry since now 90% of Brück's work involves this industry segment and its customers include many well-known and prestigious large bakeries.

## Sliced Bread

Increasingly loaves of bread, bread rolls, cakes and buns are delivered to the food industry already sliced. And it is precisely when oil is also used that

In the lower part of the picture it is easy to identify the hoppers installed in the slicer for the crumbs and end slices.

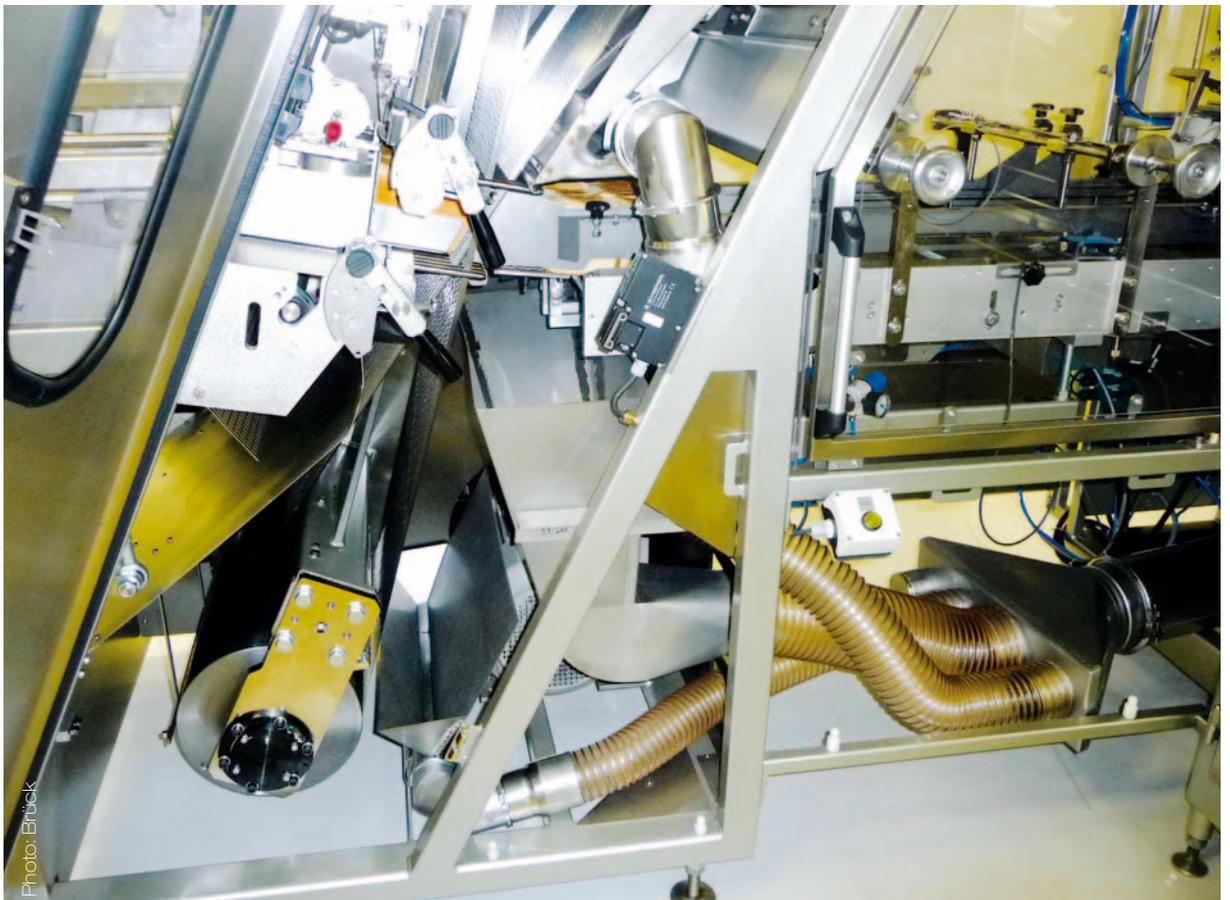


Photo: Brück



Left photo: Any crumbs which occur during cutting in the slicer and which are transported upwards by the slicers are caught by the vibrating tray. Middle photo: After cutting in the slicer the over-suction unit removes any remaining bread crumbs on the surface.

clearly noticeable deposits occur which can lead to impairments. In order not to disrupt the production process and pack goods so that they are residue-free, end slices, crumbs and defective products are to be sucked away and disposed of as far as possible where they occur. A task that was already solved in many other industries of the company Brück. Whether paper, wood, plastics or metals, the plants reliably remove chips, dusts, fibers, edge sections and production waste from production. And now the exhaust systems are also successfully used in the baking industry, including cutting machines of the GHD Hartmann from Delbrück. A slicer operates as follows: Both end slices of the loaf of bread fall immediately after slicing into a hopper located inside the slicer and they are immediately sucked away from there. Crumbs which occur during slicing and which fall to the left and right of the cutting point into the hoppers instal-



Right photo: The manual feed station for bread residues is also equipped with a vacuum cleaning connection and connected to the overall system via a pipe connection.

led to catch them are then are disposed of via a pipe system. Crumbs which the slicer transports upwards fall onto a rounded vibrating tray with a vibration motor and are eliminated there. As a final measure the bread can also be sucked away on the surface to remove the last of the crumbs. When the circular slicer is in use waste slices also fall immediately into the specially positioned hopper and in certain circumstances baguettes sliced into individual slices which do not meet the desired standard or norm are also disposed of here. Accordingly the capacity of the hopper

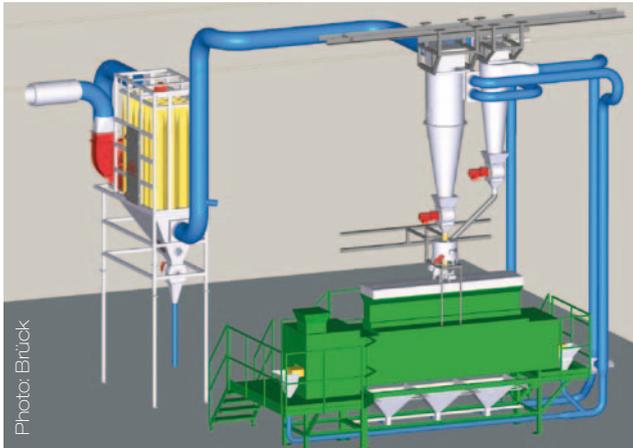


Photo: Brück

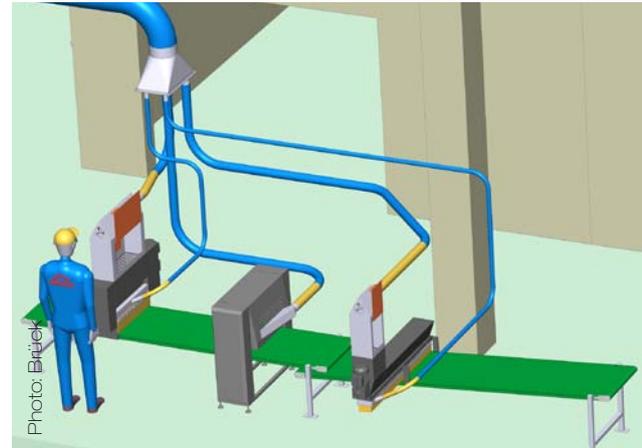


Photo: Brück

Left photo: The photo shows the CAD planning of a suction system for flour and flakes in a dough processing system including a feed system with a vibrating screen. Right photo: Removing dust from laminating systems considerably improves ambient air in work rooms.

and the connected pipe is designed by the project manager in order to ensure that every slice is caught by the air flow. Two suction devices above and below the circular slicer suck away any crumbs. In addition to the components described most systems have a manual feed installed into which end slices or complete loaves of bread can be thrown and pneumatically disposed of. Other options for the customer are to commission complete disposal, re-use of the bread residues in a bread mixer or a combi-

nation of both. In all cases the bread residues are initially fed into a cyclone separator which separates the product and the air. The transport air is discharged upwards through the central immersion pipe, processed via a filter system and returned one-to-one into the existing cycle. For the bread residues discharged in the cyclone over the underlying product outlet, the opportunity is provided to first of all detect them, then to rip them into smaller pieces in the bread residue crushing system and then to feed them to the re-use or disposal systems. "We have successfully implemented our idea for improving hygiene conditions in bakery companies" states Brück. This statement is corroborated by the many installations in well-known industrial companies

and which are increasingly using these systems in clean rooms. For these specific conditions any design and construction focuses on using as few parts as possible in the clean room and with only one pipe connection to the downstream stations outside the clean room. The reward for these efforts is not only a significant reduction in the cleaning required of the cutting system, but also the creation of a closed system which does not transport the bread residues on open conveyor belts.

### Portfolio

In addition to the suction and disposal of bread residues, Brück also offers other solutions for the bakery industry. A perfect complement to



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 Founded: 1929



Photo: Brück



Foto: Brück

Left photo: The manual feed station for bread residues is also equipped with a vacuum cleaning connection and connected to the overall system via a pipe connection. Right photo: The suction hoppers in a circular slicer cutting machine are positioned above and next to the knife.

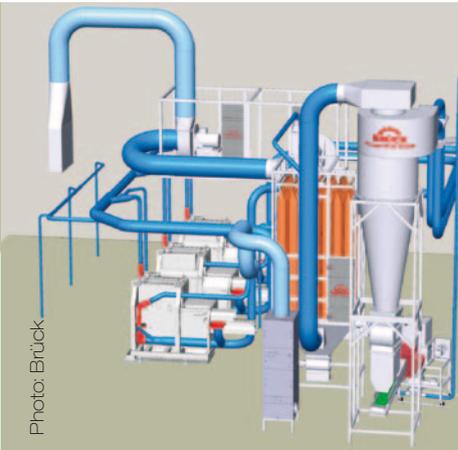


Photo: Brück

Left photo: The drawing shows a suction system for end slices on three circular slicer machines with an.

bread cutting machines is the suction of the oil mist which occurs when cutting bread in the cutting room and when combined with the crumbs leaves a film behind that

is very difficult to clean. A separate system sucks away the oil and it is then captured and eliminated in a special filter system. Not dissimilar to bread cutting are the tasks to be performed in the packaging machinery sector where material residues such as paper, plastic or films from the production process also have to be removed and disposed of. Suction systems can also be used when flours grains or seeds are being used. Examples of this include dough preparation, laminating lines, sprinkling stations and the cleaning of trays or panels. To increase overall hygiene in the company Brück recommends the installation of a vacuum cleaning system. "In many cases employees still have periods of free time after completing their main tasks when they can take care of general opera-

tional hygiene issues. Our vacuum cleaners can be connected in different places to the relevant pipes and can then be used immediately" says Brück explaining the simple principle. Given that the company manufactures a large part of the equipment it installs itself, it is able to offer special purpose engineering as well as off-the-peg solutions. "Of course it is always easier to be involved in the early planning phases of new building projects, but that is generally not the rule. When it comes to hygiene area a lot of equipment is retrofitted and then we are able to call upon our customised capabilities and our many years' experience in system design and construction" explains Brück who sees a positive future for his company.

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