STORICOM

#17 Storci PASTA MACHINERY

YOU NEED A HARD JOB BEHIND A GREAT RESULT

PASTIFICIO CAVALIERI

PASTIFICIO NIKKOKU SEIFUN CORP.

COOKERS FOR DOUGH SHEET

STORCI'S UNDER VACUUM SHEETERS

Storci offers two solutions for the dough sheet, with a unique aim: to obtain the highest quality of the product.

Studies carried out in Storci R&D Lab, in cooperation with the University of Parma, have underlined the pluses of the under vacuum system, that are the same for both the solutions offered, pointing out the difference between Storci's sheeters and the traditional ones The sheet made by the under vacuum lamination – Storci patented – is more yellow (+18%) and brighter (+12%). Chart no. 1.

The analysis of the texture highlights a more resilient (+60%) and more extendable (+25%) sheet. Chart no. 2.
The firmness after cooking is better of 20% (sample B) compared to pasta manufactured by a traditional sheeter (sample A). A lesser quantity of solid elements in the cooking water is an indicator of excellent quality. Chart no. 3.
The pasta maker can modulate the vacuum level during the kneading and laminating phases, modifying the characteristics of the pasta according to the production requirements.

The results obtained are very meaningful and provide evidence of the important characteristics of the Total Vacuum TV Series new sheeters, features that have led many pasta factories in Italy and abroad to opt in favour of these sheeters instead of the traditional ones.

The choice can be made between the **Total Vacuum sheeter STF TV HD (Heavy Duty) or the VSF one**.
The Total Vacuum sheeter STF TV HD (Heavy Duty) is a stabilized reality and has been installed in several important factories in Italy and abroad, top of the line for its structure and for the quality of the product. It is a solid machine, well designed, with a high capacity output.
It has been designed for an intensive and heavy use and is ideal for manufacturing long pasta from dough sheet (tagliatelle), filled pasta and for processing compact and hard mixtures. It has been specially made for the large industry and allows an automatic process with no operator.
Dough sheet width ranging from 540 to 1200 mm. Production capacity of fresh product: about 200-1400 kg/h.

The VSF sheeter adopts the under vacuum to a specific kneading system for manufacturing softer sheets for filled pasta; it is then particularly suitable for products such as tortellini or ravioli. It allows the automatic production without an operator, like the STF TV HD. Excellent price/quality ratio.
Dough sheet width ranging from 250 to 540 mm. Production capacity of fresh product: about 250-500 kg/h.
Tailor made solutions.

VERSATILE USAGE TO GET A DOUGH SHEET THAT IS ALWAYS PERFECT

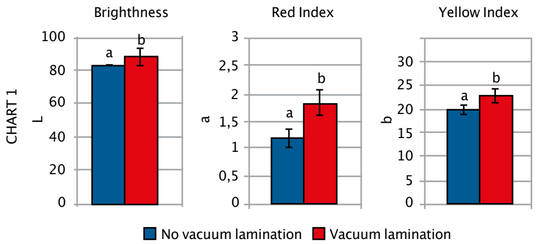


Chart 1 data analyzed with Minolta CM2600d colorimeter (Minolta Co., Osaka Japan). The spectral curves were determined on the range of 400-700nm using the illuminant D65 at the 2 ° position of the observer; the letters above the histograms indicate the significant differences between the pasta samples produced with the two different technologies (p <0.05).

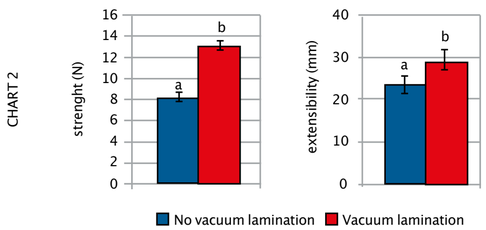
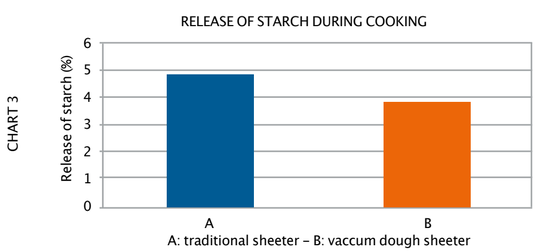


Chart 2 :data analyzed with Texture Analyzer TAXT2 (Stable Micro Systems, Goldalming, UK); uniaxial compression test; spherical probe in polypropylene (Ø2.54mm); compression speed of 3mm / s. The letters above the histograms indicate the significant differences between the pasta samples produced with the two different technologies (p> 0.05).



DISCOVERING JAPAN

NIKKOKU SEIFUN CORP. & STORCI

We are glad to publish this interesting interview to Mr Tsuchiya Yoshikazu, Managing Director of Nikkoku Seifun Corp., a Japanese Company headquartered in Nagano and a leading wheat producer in the rising sun Country, that has recently purchased a multiformat Omnia line for the production of short, long and special shapes pasta

Could you introduce your Company to us?
Our Company was founded in 1945 to manufacture cereal based products in Nagano, Nagano province, a town in a mountainous area of Japan where the Olympics where held in 1998. In the beginning, we used to deal with wheat flour only, but later in 1972 we started a new business using also buckwheat for noodles process. In 2011 we started the production of buckwheat pasta too.

How did you hear about us? Why did you choose us?
In 2011 we started the buckwheat pasta process but we were just testing it and the system was not completed yet. We were considering the possibility to find machinery able to produce differentiated quantities of some products. During that period, your Agent in Japan came visit us and, after being told about the characteristics of your products, we were so interested we started travelling frequently to Italy to visit your Company and see with our own eyes if your machines could meet our requirements.

What struck you most about Omnia line?
Among the several advantages obtained with your machines, there is certainly that one of the pre-drying of short and long pasta that is carried out by one machine only. Our Company has had a long experience in drying buckwheat and we surely know how important the pre-drying phase is for both large and small productions. All this was offered by your Company, only.

What are your projects for the future?
We would like to promote buckwheat products from a nutritional and operational point of view because the attention given to these aspects is very high in Japan. We would like to witness an increase of the consumption of buckwheat products developing new ones, also abroad. For this reason, we believe that all our efforts will be supported and endorsed by your plants and experience.

COOKERS FOR DOUGH SHEET

CUTTING-EDGE TECHNOLOGY FOR THE BEST DOUGH SHEET

Cookers are the best solution for continuously cooking the dough sheet in ready-meals lines.
They guarantee a homogeneous cooking, accuracy in transportation and during the entry/exit phase of the product from the machine. This kind of cooker is suitable for treating any dough sheet size and allows several cooking times.
The technological process of pre-cooked lasagna production, involves a pre-cooking phase of the dough sheet submerged in water at 96°-98°C. This stage is one of the most crucial of the whole process. The starch released in the cooking water, the replenishment of water to maintain low and constant the concentration and consequently check the quality of the pre-cooked dough sheet, the sheet conveying mechanic components wear due to starch sediments, the daily cleaning of the cooking tank, the variation of the sheet dimensions when being cooked and the dough transportation to the tank, are all technological and mechanical issues well known to those working in this sector.
Storci CCT series, are state-of-the-art cookers that have solved the above mentioned problems with innovative and original solutions.

Starch: mechanical and technological matters in the dough sheet cookers.
The starch, released by the pasta, is the cause of considerable problems to the drive units immersed in water.
In particular, the most common sheet conveying systems are modular belts made of thermoplastic material that age early because of the temperature and starch sediments laying in the intersection of the mesh of the belt.
This causes protracted production stops to wash out the starch in the intersections and periodically substitute all the transportation system.
The belts require very large basins to be immersed into and a lifting system to be activated whenever either maintenance is

required or cleaning the cooker at the end of production.
In case of conveyor belts made of stainless steel mesh, the longer-lasting mechanic endurance, compared to thermoplastic belts, causes a high energy consumption due to the need of heating up not only the water in the tank and the entering sheet, but also the great metallic mass of the transportation system.
The dough sheet stainless steel transportation system of cookers by Storci, has been designed in such a way that the drive units are out of the cooking water, thus not susceptible to any wear or deterioration. It is longer-lasting, of many years if regularly serviced, in any case definitely not comparable with thermoplastic modular belt conveyor systems.
The system has a very reduced metallic mass, the necessary energy consumption is consequently minimum. The footprint is minimum too; this allows for an ample view of each single part of the cooking basin, with no need to lift the transportation belt. This way, the cleaning operations are streamlined and quick, with shorter production stops and much lower management costs.

Starch: concentration in the cooking water and dough sheet quality
During the process, the dough continuously releases starch. The quantity released depends on the quality of the raw materials used and duration of immersion of the dough sheet in the cooking water.
The water replenishment, to compensate the water absorbed by the sheet and evaporated, is not enough to maintain a constant concentration of starch in the tank. This leads to modifications of the sheet quality exiting during the production.
To solve this problem, the cookers are equipped with a sensor detecting the starch concentration that is controlled by the machine PLC. If the maximum pre-set value is passed, an extra replenishment is activated – not subject to the absorbed or evaporated water – so that the quantity of starch is kept below the limit.

Cooking time and dough sheet quality
The cooking time is a technological parameter that is based on the characteristics of the raw material used and on the quality outcome the Customer would like to obtain from the final product. However, the timing is conditioned also by the rhythm of production expected on the assembling line and by the size of lasagna to be placed in the trays with different dimensions and weights (i.e. 350g. – 400g. – 600g. – 1000g. etc.). The cutting length of the sheet and the assembling line rhythm require a forward motion speed that usually does not correspond to the ideal cooking time, meant as a technological parameter.
To work this out, fallback solutions are looked for, such as modifying the cooking water level in the tank or tilting the conveyor belt so that the length of the part immersed varies. Otherwise, the Customer should accept the fact that there are different cooking times, maybe adjusting the temperature of the cooking soak to make up for the different immersion times.

This matter is sorted out by Storci's system, modifying the immersion point of the dough sheet. The cooker length is sized for a maximum value, depending on the shapes and cooking time. Briefer times are possible, simply shifting the entry point of the sheet, so that the submerged part is shorter.

Water heating system and dough sheet cooking tank
The height of the cooking tank of the CCT series by Storci, is only 300mm, much lower than that one of the traditional cookers for the following two main reasons:
· It does not contain the conveyor belt and the lifting system (that is necessary to extract all the transportation system and get nearer the tank for cleaning operations);
· It does not contain elements necessary for heating the cooking water.
This allows the access to the inside of the cooker for the cleaning activities at the end of shift as well as carrying out maintenance operations just after lifting the cooking tank lid.
Water heating is made by the patented system "steam-trap", allowing the injection of steam straight between the bottom walls of the cooking tank.
It is necessary, then, neither the usage of a traditional heat exchanger with a water re-circulation pump nor the direct injection of sanitary steam into the tank water.
Therefore, the sheet can move along the cooker tank without being shifted by the water movements caused by the re-circulation pump of the exchanger or by the steam injection into the tank.
A homogeneous and regular forward motion of the dough sheet simplifies the cutting operations at the end of the line, especially in case of automated plants with a large hourly capacity and cooking tanks longer than 10 meters.

About two years ago, thanks to an **important study carried out by Storci R&D**, an ambitious project was conceived concerning the improvement of the drying process inside the static dryers.
To reach that goal, the dryer has been completely re-planned, designing again and improving all its components from a point of view either technical and technological, resulting in a uniform ventilation over all the trays inside the dryer. This has improved the drying process at both high and low temperature, with remarkable advantages for the final quality of the product.
Since 2019, new dryers have been manufactured and are about to be installed in several pasta factories.
This step forward is to be added to all the distinctive features of Storci's static dryers.
First of all, they have been manufactured with the same panels used for the big automatic lines by Fava/Storci: panels that are already excellent but have been further refined.
Moreover, the dryers allow a **computerized drying process**, extremely easy and versatile, because it is possible to change, quickly, recipes and settings simply choosing from the menu of the touch-screen interface. It is also possible to modulate it in case the production is to be increased and new dryers are needed to implement it, so that the investment is totally adaptable to any requirements the Customer might ask for.
Storci's static dryers are resilient and long-lasting and among the most reliable on the market. For this reason, we can offer a **10-year guarantee** for the fiberglass panels.
Last but not least, **the new drying phase software**.
This new system is different from the previous ones for one main feature: it is based on an **auto-adaptable principle**.
When setting a starting and ending phase, during the middle phases the software allows the recipe to constantly adapt to the real ambient conditions. This way, it is able to correct its own functioning with reference to possible new events, such as human mistakes made by the operators or failures, either when drying or producing.
All this allows a more precise drying level, thus contributing to ist perfect stability, for an excellent dried pasta, according to the Customer's preferences.

NEW STATIC DRYERS HW-8T BY STORCI – ADVANCED DRYER

VERSATILE, POWERFUL AND CONVENIENT

PASTIFICIO BENEDETTO CAVALIERI

A CENTURY OF TRADITION AND INNOVATION

Benedetto Cavalieri Pasta Factory celebrated its hundredth year of uninterrupted business last year and has now reached its fourth generation of pasta Masters dynasty.
A pasta making factory that does not need introductions since it has been awarded two Oscars at the "Fancy Food Show" held in New York as well as got a reward by the "Wine Spectator" magazine (the gourmets' bible) for the best Italian pasta and its excellent flavour.
Mr Andrea Maria Cavalieri, currently managing the factory along with his father Benedetto Maria, answers our questions.

Your knowledge has been transmitted for about a century, punctiliously. Your factory, recorded in the Italian Historic Enterprises registry, covers an area of 1800 sqm and three floors. Could you please tell us your story and the secret of your success?
First of all, we would like to thank you for being the subject of one of your pieces in your "Storcicom" journal. That's flattering indeed!
Our story is simple: four generations working on a strong idea, that one of my grandfather Benedetto who, at the opening ceremony of July 7th, 1918, informed his 83 employees about his project, as follows: " We have the most modern and functional machinery (2 mixers, 2 kneading units and 4 presses by S.A. Meccanica Lombarda of Monza – now kept in the Pasta Museum), the innovative system "Cirillo" for the drying phase; moreover, we have got the best durum wheat, fine selection of the hills of Puglia and Basilicata, to make the best pasta ever. This pasta will be named after my first and family names, the prestige and reputation of my Family and Otranto Land!".

From a technological standpoint, how did Storci contribute to improving the quality of your pasta, which was already exemplary in and of itself?
We are grateful to Anzio Storci, his sons and all his collaborators for the contribution given to the success of our pasta, particularly the solutions for reducing the mechanic damage to carbohydrates and gluten and for the reliable and precise automatic pre-mixer.
Please let me say that Anzio Storci is to be considered as Universal Heritage of the Pasta World, a treasure trove of experience on which he has built a mine of unique solutions created with intelligence, pragmatism and precision. Of this, my father and I have been witnesses for decades.

What about your future projects?
We will be using soon the static drying cells for special shapes. And the building, that has hosted our activity since 1918, with its chimney stack (that was originally 30 meters high), its big glass tanks and star-shaped vaults… will not be able to host us for long. Then, we will certainly know who entrust to.

TRENDS OF PASTA MARKET IN EGYPT

INTERVIEW TO MR ASHRAF EL SAYED EL WASIFY

We interviewed Mr Ashraf El Sayed El Wasify, Egypt area Sales Manager, who told us what he thinks of the trend of the Egyptian Market and thoroughly examines the prospects for the future.

Could you tell us about the Egyptian pasta market and its current trend?

With over 100 million inhabitants, Egypt is a populous and growing country.

After having undergone a phase of a remarkable inflation in this historical moment, in these past few months of 2019 there has been a constant strengthening of the Egyptian Pound against the Euro and US Dollar, that has led to an improvement of the local entrepreneurs' capacity of investment in foreign products and machinery.

If in the past, the rice had always had a leading role in the Egyptian farming sector, starting from 2019 the Ministry of Agriculture has decided to reduce the farmland dedicated to this product. Consequently, a new trend was born: the wheat cultivation and pasta production have gradually become more and more popular.

Today in Egypt there are approximately 300 pasta factories, as follows:

- about half of them being temporarily not working for several reasons, mainly because they need to upgrade their plants, in view of a market that has been evolving toward higher quality standards;
-the remaining half is fully operating although some of them need to be technologically potentiated.

As far as the pasta consumption is concerned, the average monthly consumption per person is 650 grams, whereas the percentage of consumers per month is 60% of the entire population.

You have been cooperating with Storci for many years. Which are the main features of Storci's plants that, in your opinion, have drawn the attention of Egyptian pasta manufacturers?

Indeed, my cooperation with Storci has lasted for a very long time and is based on a strong professional and interpersonal relationship.

Concerning the features that are mostly interesting for the Egyptian producers, you can surely confirm that Storci has built its own reputation in Egypt manufacturing resilient and technologically innovated machinery (about 37 plants installed by its Partner Fava); the Staff is always fully committed to supply Clients with technical and technological support that is essential to exploit their production line to its maximum potential.

I would also like to mention the first pasta technology Convention that Storci organized in Egypt in April 2018, that obtained a very positive outcome.

How will the market develop in the future, in your opinion?

I am pretty sure that the Egyptian market offers a great potentiality because it has all the characteristics that can lead us to success.

In the pasta market, there are still many companies who are working with obsolete machines and could take advantage of Storci's technology to raise the bar, with solutions and prices suitable for their own needs.

There are also many entrepreneurs who come back to Egypt after several years abroad and need to be advised about investments and procedures in the pasta market.

In these cases I can help them, along with Storci, to choose the right machinery, which production to be started and give them all the financial and commercial information that they need for their business, whether it is new or already existing and in a phase of technological upgrade.

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