

# IMAFORNI TODAY

THE NEWSLETTER OF IMAFORNI INT'L

Year 8, issue 1, September 2009, quarterly • Editor: Imaforni Int'l, via Stra', 158 - 37030 Colognola ai Colli (Verona) Italy, tel +39/045/6174711, e-mail info.ima@imaforni.it, www.imaforni.com  
Publication Manager: Patrizia Adami • Graphic Design: Clab Comunicazione, e-mail info@clabcomunicazione.it • Court Authorization, Verona R S n. 1556 - Sept. 1 - 2003 • Postal subscription comma 20/B legge 662/96 D.C. Verona • Printed by Grafical • All rights reserved. Nothing may be reprinted in whole or in part without written permission from the editor.

## Summary

### on show

A perfect blend of reliability and innovation

### news

Building the future, with an extra 6000 square metres

### about us

Customers can rely on Imaforni know-how

### technologies

Win-win: savings for customers, benefits for the environment



## Dear Readers

2009 brought the 40th anniversary of the first moon landing by man, in July 1969. Everybody can remember that day! A milestone in the evolution of human culture! That venture opened up totally new scenarios for the future expansion of civilisation in outer space. What is the scenario facing our sector nowadays? Apart from a few geographical areas that have suffered a slowdown in their investments, mainly as a result of the recent credit crunch, other areas of the world have largely compensated for this negative trend: as forecast in the previous issue of this newsletter, year 2009 has so far confirmed the positive trend of our business - and year 2010 looks very promising as well. The "News" section reveals the steps that the Imaforni Group is taking to make this future come true, reporting at the same time about the important investments we have recently completed. Energy-saving needs and environmental concerns, which are the source of continuous discussion within our sector, have not left Imaforni indifferent and they are covered in the "Technologies" item. And once again we are at IBA 2009, another encounter with the market and competition, which we believe will stimulate our technical growth!

*Demetrio Castello - Ugo Bademer*



**IMAFORNI**  
The basic ingredient

YOU CAN'T MISS  
WITH IMAFORNI



Imaforni points the way  
to success.  
Reach your target  
with a reliable partner.

**IMAFORNI**  
The basic ingredient

# A perfect blend of reliability and innovation

Rotary moulders and depositing machines: improved performance for a wider range.

In Hall 11, stand 11D16, at IBA 2009, Imaforni is showing the two units that best illustrate a perfect blend of reliability and innovation. For short dough and cookie lines with medium to high production rates, the latest model of the **Rotary Moulder** can be seen in a version with mould, forcing and rubber rolls that are 260 mm in diameter. In line with Imaforni's tool-free design philosophy, all routine and extraordinary maintenance operations on the machine can be carried out with bare hands! During production change-over, for example, the mould can be quickly unlatched and raised from its position without the need for tools. The same applies when the conveyor belt needs to be replaced: the operator can easily tilt the hopper, remove the mould, the rubber roll, the final nosebar, and all the supporting rolls without needing any tools.



The whole operation takes no more than 40 minutes. Easy access to the knife means it can be cleaned or replaced in a very short time. All these operations can be carried out directly by the production operator without needing to involve the maintenance crew – thus obtaining savings in terms of time and specialized personnel resources, and slashing the overall running costs of the unit as compared with traditional rotary moulders. The frame now consists of a single piece of folded steel plate. The entire structure is lighter but guarantees the same rigidity as traditional ones, which consisted of two thick, heavy metal frames. This also makes it possible, upon request, to construct the frame entirely out of stainless steel.

The new design matches the new style of Imaforni's latest equipment: all the motors are directly coupled to the gears and greater space underneath the machine provides full and easy access for cleaning purposes. Control of the machine can be customized to suit the baker's needs: the basic level of control includes manual hand wheels for adjusting the knife and the distance between the various rolls, and all speeds can be adjusted from the touch screen. A basic recipe-storage system keeps a record of the unit's set speeds. On the next level up, the control system can be fully servomotorized and all adjustments to the machine can be made through the operator interface touch screen, with a full recipe storage system. Several other accessories, such as egg wash, sugar/particles sprinkler, jam depositor and ink printer, ensure the absolute flexibility of the product types that modern biscuit markets require. Another new item is the Depositing Machine. Its dosing head consists of a pair of rollers in the hopper that

feed a volumetric pump operated by gears. All depositing movements, whether intermittent or continuous, are possible. The head can carry out up-down movements and follow the direction of the band during dosing. The movements of the head are carried out by electrical servomotors that allow for the elimination of all mechanical transmission shafts. The correct timing of these movements is ensured by a dedicated electronic device. The adoption of a volumetric pump operated by gears provides uniform and constant feeding of the dough to each nozzle, thus eliminating variations in the dosing weight across the entire width, which is a limitation in all traditional depositing machines. The machine can be equipped with dedicated devices which make it possible to produce the most classic wire-cut biscuits. One machine can therefore handle a full range of soft-dough cookies, with deposits also being made with turnable nozzles, and wire-cut ones. The unit is usually also fitted with a jam depositor which further expands the range of products which can be obtained from this unit. Flexibility is therefore achieved with limited space requirements and limited capital investments, accompanied by a unique and precise control of the deposited product's weight. The highest standards of sanitary design are achieved by the adoption of tool-free maintenance procedures.



The machine can be equipped with dedicated devices which make it possible to produce the most classic wire-cut biscuits. One machine can therefore handle a full range of soft-dough cookies, with deposits also being made with turnable nozzles, and wire-cut ones. The unit is usually also fitted with a jam depositor which further expands the range of products which can be obtained from this unit. Flexibility is therefore achieved with limited space requirements and limited capital investments, accompanied by a unique and precise control of the deposited product's weight. The highest standards of sanitary design are achieved by the adoption of tool-free maintenance procedures.

The machine can be equipped with dedicated devices which make it possible to produce the most classic wire-cut biscuits. One machine can therefore handle a full range of soft-dough cookies, with deposits also being made with turnable nozzles, and wire-cut ones. The unit is usually also fitted with a jam depositor which further expands the range of products which can be obtained from this unit. Flexibility is therefore achieved with limited space requirements and limited capital investments, accompanied by a unique and precise control of the deposited product's weight. The highest standards of sanitary design are achieved by the adoption of tool-free maintenance procedures.

# Customers can rely on Imaforni know-how

Our pilot centre is always ready to invent and test your new products.

In this fast developing world, the customer's need not just for machinery but also for complete and professional support was perceived by Imaforni back in the mid-1990s. A technological support team and a pool of freelance specialists was thus made available to our customers to provide qualified technological and process support upon request. Qualified in-house staff, consisting of a technologist with multi-year experience, helped by a junior technologist, put their enormous know-how and skill at the disposal of our customers. Throughout our 47 years of activity, working on countless different projects in many part of the world has enabled us to build up vast technological and biscuit-making knowledge: all this know-how is now available

to our customers when they buy our lines. Our in-depth knowledge about the use of ingredients of a whole variety of specifications is now available around the world. This may involve identifying the correct and most suitable process parameters to ensure consistent and efficient production or, upon request, providing support at the start up of our production lines. These are just some of the multiple activities our technological team is requested to perform. Personnel training at customers' sites is another of the important activities carried out by our team, an aspect which cannot be underestimated when a new, sophisticated production line is put in the hands of local operators. In the late 90s Imaforni decided to invest in enlarging the factory in order

to house our Innovation & Development Center. Since then, the machines and ovens have been redesigned several times but every time we put a very simple concept into practice: **in order to collect reliable information from a test line, only a low-output industrial line can be used.** The current line consists of a 1.2 by 18 metre oven. Forming is done by a wirecut/soft-centre machine, or by a 3Extruder for very sophisticated and unique cookies, by a depositor/wirecut (single or double head), or by a rotary moulder. True to Imaforni's philosophy of using hybrid ovens for the baking process,



the first zone of the oven consists of radiating heat (cyclotherm), while the last one gently delivers the heat by means of convection. The test line and the technological staff are available to our customers for testing new recipes or processes, or for help in developing new products or optimizing the baking profiles of biscuits in the hybrid oven. The Test Center is

also used by Imaforni's Technical Department for testing the performance of all newly developed or modified equipment, and for adopting new materials or components before putting them into full standard production. Professionalism, knowledge, and culture are the important ingredients that make Imaforni the reliable partner our customers now expect it to be.

## TECHNOLOGIES

# Win-win: savings for customers, benefits for the environment

Imaforni is committed to meeting new cultural and technical challenges.

A global topic of discussion in the modern world is the need to reduce energy consumption. The matter can be looked at from different viewpoints: as cheaper energy bills for a factory, as a reduction in the uncontrolled use of fossil fuels, or as lower emissions of fumes into the atmosphere. Here, business needs and environmental concerns coincide. Years ago, a specially appointed team of experts was set up in Imaforni to address these important topics and to evaluate the implications for the sector as well as the technical issues concerning equipment. A very basic preamble first needs to be made, and it is one that is all too often neglected: so far, no "magic" technical solution capable of providing "clean" energy in great quantity and at an affordable price has been discovered. A constant, daily commitment to carefully planned energy savings solutions and to the best possible use of available fuel seems to be the only reasonable and effective way to obtain substantial savings – which can

even be in the range of 30-40%. The study carried out by our specialists has identified 4 main areas of intervention that lead to the most significant savings. For obvious reasons of space, here we can just outline the main concepts:

**1. Combustion:** optimization of the mixture of combustion air and fuel, ranging from low to high flame in a modulating burner, has been shown to make a significant contribution to fuel savings.

**2. Process:** this is probably the most ready available tool at the disposal of the operator, but it is all too often neglected. It has been seen that fuel consumption can be lowered simply by setting the working conditions of the oven correctly - i.e. baking at the right temperature or extracting only what needs to be vented from the chamber. Radiation or convection heat have different penetration powers into a dough piece. By selecting the most suitable proportion of radiating and convection heating zones in a hybrid oven, the energy transferred to the dough

piece can be optimised, thus significantly contributing to more efficient use of fuel. Experience shows that oven settings are often based simply on the principle of making it easy for the operator to run the oven. Most traditional and consolidated baking profiles these days conflict with the most basic rules of energy saving. It can be demonstrated that the same baking process and quality standards of the final product can be achieved by wiser management of the extraction dampers. It is surprising to measure how much energy most bakeries tend to waste up their chimneys! The type and specifications of the conveyor used for baking is too often taken for granted. Here again, tradition might lead to the choice of an unnecessarily heavy or thick type of conveyor. In most cases the same product can be efficiently baked on a lighter band without any loss of quality, appearance or texture in the final product. The type of conveyor, coupled with correct use of an insulated return conveyor system wherever possible, can contribute to energy savings by around 10-15%.

**1. Recovery:** as previously mentioned, a great amount of heat is often unnecessarily vented from the chimneys. Recovering part of this heat and reintroducing it in the last zones of the baking chambers, or simply exchanging it with other services in the factory which require a heat source, might be some of the most immediate ways to reduce the factory's energy bill. It would also make a positive contribution to environmental protection by venting air into the atmosphere at a lower temperature than would be possible with traditional old-fashioned ovens.

**2. Losses:** a good slice of energy savings is obtained by properly designing the body of the oven, by taking into consideration many small technical details with the aim of reducing to the absolute minimum all the possible areas of heat loss. This can make a significant contribution to savings.

One simple example: very thick insulation on the top and side walls of the baking chamber obviously prevents significant heat loss from the oven body. In this area, Imaforni has led the way since the beginning of the millennium. The human race has reached a point of no return in terms of its conscious care for the environment. The journey has just started and there is still a long way ahead of us: Imaforni is strongly committed to this cultural and technical challenge, and we constantly undertake to use our know-how and technical resources to achieve this target.

## NEWS

# Building the future, with an extra 6000 square metres

A new manufacturing hub for an expanding Imaforni.

tion site, which is now mainly dedicated to production processes. A large amount of mechanical components for the forming equipment and for the ovens are manufactured at this production site. All the manufacturing machines and tools have been refurbished, upgraded, or replaced. The oven bodies are manufactured and stored in this 6,000 m<sup>2</sup> building before being shipped, sometimes in a pre-assembled configuration. The space needed to carry out pre-assembly operations, as well as the space required for storing the finish modules, is very large, and it reflects the volume of business generated nowadays by Imaforni. In the assembly workshop the machines are finished with all the necessary mechanical and electrical components,

wired up with the purpose-designed control panels, and fully and thoroughly tested before shipping. One of the characteristics of the Imaforni business model is the in-depth testing procedures that all our equipment is subjected to before going out through the main gates of the factory. This stage of the manufacturing process enormously reduces start-up time for the line at the customer's site; this advantage is greatly appreciated by those customers who have had less than pleasant experiences with other vendors. We have such a strong belief in this aspect of our professionalism that we have even reinforced our quality staff, in order to provide even stricter control! By having shipment of the ovens and of the machinery in two separate buildings, we

have improved our total daily delivery-rate capacity, which was previously seen to be one of the bottlenecks in our manufacturing process. This reorganisation process has greatly reduced idle time, allowing all our departments to work more efficiently. The improvement targets we set ourselves have all been met, thanks to the usual outstanding commitment and work of the whole staff in all the departments involved in the change. This did not come as a surprise, but it did provide pleasant confirmation. We are now all set to competitively face the market challenges of the years ahead, and we are ready for further expansion as and when needed, thanks to the 45,000 m<sup>2</sup> green field we recently acquired, just next to our factory. We just can't wait to start using it!



Our Group has enjoyed a trend of continuous and stable growth since the mid 80s. And we have been able to keep up with this growth in terms of both human resources and available space. In order to adapt our business model to the further positive trend that we see ahead of us, in the first half of 2009 we invested in considerable changes to both our production and our assembly sites. A big effort, which has put us in a comfortable

position to deal with further market expansion. Of the two production sites currently available, the workshop in the building at our headquarters has become more specialised. Here we carry out all our machinery assembly activities, the storage of components and spare parts, and testing of all control panels. Our light-carpentry activities, i.e. laser metal cutting, bending, welding etc., have been moved to the second produc-

