

# Partnership challenge

From zero to hero with Siro: how choosing the right partner can result in market success in a very short time.

## GRUPO SIRO

Grupo Siro was voted 'Best Spanish Food Company 2003' for Innovation, awarded by Ministry of Agriculture, Fishing & Food. A market leader in pasta production, the group has moved on to become leaders in bread, baked goods and pastry. It has acquired several companies and production sites along the way. The group has grown from 500 to 3200 staff in five years and the R&D staff from four to 40. It invested €240m in 2007-2010 and 2009 turnover was €321m. It provides bakery products to Mercadona supermarkets.



There is much talk about the concept of 'modern bakery' and excellence in areas like process efficiency, great product, good business.

So it was with enthusiasm that European Baker visited the Grupo Siro bakeries in Spain to see an advanced technology bakery which is successful in its highly-competitive markets including selling bread and pastries to giant supermarket chain Mercadona.

It was an opportunity to look behind the brand name to investigate this winning formula. Dutch engineering company Capway Systems was the main equipment supplier in this project as well as heading the overall project and it was in company with them that we visited their bread bakery in Aguilar de Campoo (and also Medina del Campo which is the pastry bakery) which are amongst the most modern in Europe. It is an interesting story in which two words – 'partnership' and 'challenge' – stand out.

## PARTNERSHIP

Capway Systems, working with representatives IMCO, spearheaded the two projects. Grupo Siro had their own specific demands how the design should be and, together with Capway, they achieved excellence in terms of process-optimisation.

One of the main design aims was 'stability in production'. Capway was keen to push themselves to new levels of expertise which was driven from the highest level. Grupo Siro, being new entrants to the market, had an open-minded approach. The project went to plan despite the tight time restrictions for the overall project. There is also a strong partnership link with supermarket chain Mercadona, who sell the bread and pastry products made by Grupo Siro. Engineering and Technical director Antonio Prieto's responsibility was to make the project a reality. Peter Pieterse and Fernando Infiesta provided the Capway know-how and made the project happen working as an effective and professional team.



FROM LEFT TO RIGHT:  
ANTONIO PRIETO, GRUPO SIRO (ENGINEERING & TECHNICAL DIRECTOR).  
PETER PIETERSE, CAPWAY SYSTEMS (MANAGER SALES ENGINEERING).  
JOSE LUIS SALVADOR, GRUPO SIRO (PASTRY PROJECT MANAGER).  
FERNANDO INFUESTA, IMCO (COMMERCIAL DIRECTOR, FOOD).

## CHALLENGE

The challenge was to build a modern bakery with excellent stability of production – from a scratch design, heavy duty, well-engineered, efficient, low maintenance.

Siro were under strict time constraints to fulfill substantial new bread orders to Mercadona supermarkets – 'time is money'.



AGUILAR – BEFORE AND AFTER AND (BELOW) THE INTERIOR.



The project period was June to December 2009 and this covered from concept to reality.

The outcome was a success and Siro fulfilled its orders with Mercadona and the two continue to work together.

Siro is a market leader in several areas.



## PROFILE OF BAKERY: AGUILAR DE CAMPOO

Two identical lines, robotic handling, low speed high-volume concept, making mainly white tin bread with heavy duty and low maintenance. Up to 9000 units of 16 slice pan blanco per hour. Oven width of 3.75 metres.

**W**hen you walk in, you are immediately aware of calm efficiency, cool air signifies efficient baking, it is very clean, there is an ambience of quiet, ordered calm as well as a delicious smell of fresh baked bread.



AgUILAR has two identical lines which has major benefits in terms of commonality, maintenance and hygiene, training, efficiency in all areas of operations.

Capway went for a lower-speed high-volume concept rather than be drawn along by the commonly-held belief that high-speed equals best

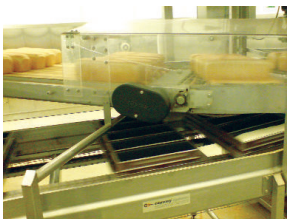
technology. It was a decisive factor in the negotiations. The size of the site enables a large footprint.



Conveyors and ovens operating at high speeds may look good but the risks are very high. Lines which break down under strain require buffers and this

equals wasted space and is generally bad in terms of efficiency. If a slower line does suffer faults then the line can simply be slowed and the volume contained within the line. Much simpler.

Medina runs at around three trays per minute and nine to ten trays is common elsewhere on other



lines. A big difference in speed.

This meant Capway had to design a wide line in a short time, but they were able to meet the design requirements within the time-scale.



Baked bread passes through one compact machine which separates the lids

from the tin, then removes the bread gently from the tin using suction cups moving at high speed, then the lids, tin and bread travel onwards in the same direction but now as separate entities on separate paths.

The lids pass along the top of the line, above the pans and bread to save space. Baking forms pass through the Cleancap system and at a clever pan-cleaning station which revolves completely to



remove debris using gravity. Elements such as crumb and loose toppings simply drop out of the tin which then passes on to be cleaned, using air and if and when required, hot water.

The bread is whisked away by a conveyor to the very high capacity Capway Systems cooler. The Capmatic cooler has an open structured belt built by Capway to give the best cooling effect on products.

The baking forms are passed through a pan recognition system and pan cooling system before entering the Robocap system where they are stacked ready to be re-used at any time. Robocap is essentially a



robotic system which handles trays and pans and stores them in a caged area. It holds, in meticulous order, all the different forms to be used on the line. So that when a different bread product is to be made then Robocap automatically sends out the correct ones.

You can see when one product, such as a tin bread, is passing through that it handles the correct pans and then when a change-over occurs it finishes storing the pans it has been using, re-configures itself and begins to roll out the pans which the new



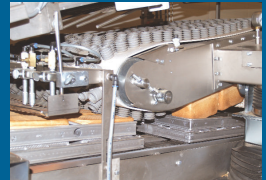
## AGUILAR



BAKERY EXTERIOR.



OVEN.



DEPANNER & DELIDDER.



DISCHARGE CONVEYOR.



LID RETURN CONVEYOR.



CLEAN PANS MOVE ON TO THE MOULDERS.



CAPMATIC COOLER.



COOLER.



**SHEETED PASTRY DOUGH.**



**PROOFER.**



**OVEN UNLOADER.**



**INSPECTION.**



**TWO COMPLETE LINES WITH A CAPACITY OF 30,000 UNITS PER HOUR.**

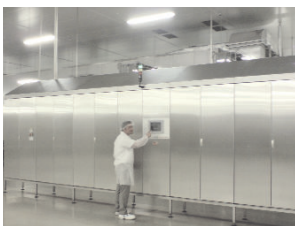


**ECO TRAY.**



**READY FOR PACKING.**

## PROFILE: GRUPO SIRO >>



product requires. It could be the same ones but could also be completely different ones. It is very efficient. This being arguably one of

the most unpleasant tasks for a baker. It can also be used as a buffer taking the baking forms out of the line post-production or as an accumulator during production. This pan and lid storage system make Capway a world-leader in this area. Robocap, like a faithful servant, never misses a beat and runs with efficiency within its cage.

The whole line divides into two for moulding. This once again is part of the lower-speed higher volume approach and gives more control over the line. No flour dusting is needed so it is simply not used – another efficiency.

The lines re-join at the point where the moulded dough is put into the pan. This then passes on the conveyor through a hole in the wall to the proofer. Two moulders drop the dough pieces into their trays at high speed.

When ready for baking the dough passes into the W&P oven. An extra-wide design is integral to the high-volume, lower speed philosophy of Capway.

As Pieterse remarked: "After the de-panner, it is really only in the packing areas that you really notice the speed of product coming off the line."

It is true that despite the calm of the main baking areas bread streams in relentlessly and the packing machines whirr at top speed. Mercadona collect bread directly from the bakery.



**JOSE GUTIERREZ.**

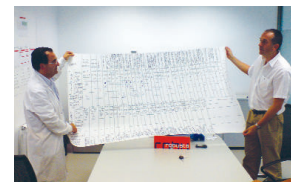
It requires low levels of maintenance and his team perform the preventative maintenance strictly, taking their own responsibility seriously.

This aids the on-going performance levels. Approximately 10 hours per week are required for all equipment from silo to packing machines which is a very low down-time.

There is a service contract with Capway and they inspect the whole line twice per year. Gutiérrez made particular mention of the Cooler and Robocap and said they have had no problems since installation.

"No noise, reliable and of rigid construction." Because the equipment has high performance levels they are always looking at ways to improve their processes. They are able to target new levels of excellence so process analysis is performed regularly. In terms of training line-operators again the line is easy to use so this is minimal. They train several people to perform the same role so that people can cover for each other and they also try to move people around between Aguilar and Valencia to broaden their experience. The few maintenance staff we met seemed happy and had great confidence in the equipment. It is rare to see such relaxed bakers in a high capacity environment.

In conclusion Prieto said that he was extremely happy with the way the partnership with Capway Systems and IMCO played out. It was a difficult under-taking technically, plus Siro was entering new markets with little background experience. The project was fulfilled fast and in adverse conditions. He said he would work with Capway and IMCO again as they met the many challenges in terms of the project and 'the relationship between quality and price is very good'. ■



**MONITORING STATION LINKS DIRECTLY TO CAPWAY ENGINEERS.**