



A close partnership between IPCO and an OEM enabled Mondelēz International to upgrade from wire mesh to a solid steel belt – using the same oven.

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CASE STUDY: OVEN UPGRADE FOR MONDELÉZ INTERNATIONAL



— FROM CRACKERS TO COOKIES: MONDELÉZ INTERNATIONAL, CHINA UPGRADES BAKE OVEN LINE

Crackers have been a favourite snack in China for decades, but exposure to Western-style snacks is beginning to lead to a change in the country's taste preferences with more and more shoppers choosing cookies.

This is leading many bakery operations to look at how best to respond to this change in the market and global snacks powerhouse Mondelēz International (formerly Kraft Foods) is one such company. Having operated in China since 1984, the company knows the market better than most and took the decision to switch a bake line at its Shanghai factory from crackers to cookies.

The key aspect of any such switchover is a move from wire-mesh to a solid steel belt – cookies must be baked on a solid surface. One way of achieving this is to invest in an entirely new production line but Mondelēz International instead asked IPCO and OEM Dingson Machinery to work together to upgrade the existing wire-mesh belt conveyor to a solid steel belt system.

New belt installed in just two weeks

The project required extremely close cooperation between IPCO and Dingson Machinery. Dingson supplied the conveyor drums, tensioning system and overall support framework, while IPCO provided the steel belt (IPCO 1300C grade, size 156 000 x 1 250 x 1.2 mm) and all related components including an innovative Compact Belt Tracking system and graphite skid bars.

Once the preparatory works had been completed, installation of the new steel belt took just two weeks, enabling Mondelēz International to start production of its popular cookie ranges within a month of closing down the existing line.

The bake oven line before modification





Installing IPCO's solid steel belt

“It’s easy to clean as its surface is very smooth.”

With production now successfully underway on the new steel belt bake oven line, we visited the Mondelez International manufacturing facility in Shanghai and asked Mr. Ming Zhu, Manager Engineering Department, to tell us more about the project.

Could you explain why you wanted to change from wire-mesh to solid steel belt?

The reason we decided to change the wire-mesh belt to solid steel belt is market demand. Crackers have been popular in the past decade in China, but we saw a trend that the cookies are more and more popular here in China. Local consumers now prefer cookies instead of crackers. We get increasing demand for cookies, so we decided to change the production capacity from cracker to cookie.



You decided against investing in an entirely new line, didn't you?

Yes, that's right. We already had an oven line with wire-mesh belt, so we didn't want to have to change the whole bake oven line if we didn't need to. We were able to switch production from crackers to cookies by just replacing the wire-mesh belt with a solid steel belt. We were able to save a lot of money. It meant that we were able to continue to use the existing oven – this was still in very good condition.

Were there any other benefits?

Yes there were. Firstly, it kept the project time short. If we'd had to change the whole oven, we would have needed very much longer. And secondly, the fact that it was a very easy decision to make meant that we didn't need to go through lots of different approval processes.

All in all then, did the modification project meet your expectations?

Yes, it did.

With hygiene a vital consideration for all food processors these days, the smooth, flat surface of a steel belt is another key benefit, as Mr. Zhu confirmed: “For us, the big difference between the new solid steel belt and the old wire-mesh belt is that it's easy to clean as its surface is very smooth”.

And what of the cookies themselves? Mr. Chang of Dingson Machinery summed it up perfectly. “Products baked on a solid steel belt have a much better surface and shape than those from a wire-mesh belt, and the taste is more delicious. This product will definitely be popular on the market!”



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