Forbo MOVEMENT SYSTEMS

benefit!

Information for our customers from the food industry Issue 2/2011

Forbo Siegling – the solution provider

Less waste. More quality.

Forbo Siegling did not just exchange belts for the Icelandic food company Bakkavör, but enhanced their entire conveyor concept too. As a result, the conveyor operates more sustainably, quality has been increased and waste reduced.

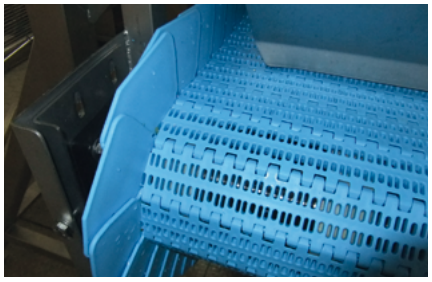
Bakkavör produces a variety of potato products in its Makerfield plant in the UK. By adapting production machinery and exchanging several belts, Forbo Siegling has made huge improvements in this production process. Forbo Siegling personnel found clever, constructive solutions for two sections of the process.

Blanching and cooling

In the past, a system of modules, reinforced with steel flaps, had been used for blanching and cooling pieces of potato. Because of this belt's heavy weight, some modules repeatedly broke, therefore frequently resulting in downtimes. The risk of product contamination was very high. Each belt repair was very time-consuming.

Forbo Siegling's stronger Prolink series 6.1 modular belt (S6.1-23 FLT PP) is the solution for this application. The modular belt is not reinforced with steel flaps and weighs much less. Only minimal changes to the conveyor were required. The belt was exchanged during just one night shift, so production was not brought to a halt.

> p.2



Focus

New directive in force

The new EU directive no. 10/2011 for plastics with direct contact to foodstuffs came into force on 1 May.

In line with article 22, a transition phase is however permitted. Therefore, we as producers are permitted to use the materials without making any changes until 31 December 2012. Should the amended directive require changes to certain products, Forbo Siegling will do so within the statutory transition period.

Any questions? Just contact our experts:
benefit.food@forbo.com

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Less waste. More quality.

< 1 The new belt now makes higher product yields possible, as malfunctions no longer occur. The belt is much lighter, making it kinder to the conveyor. It is also easier to clean, so water consumption for cleaning cycles is much lower. Energy consumption and CO_2 emissions were cut by 30%.

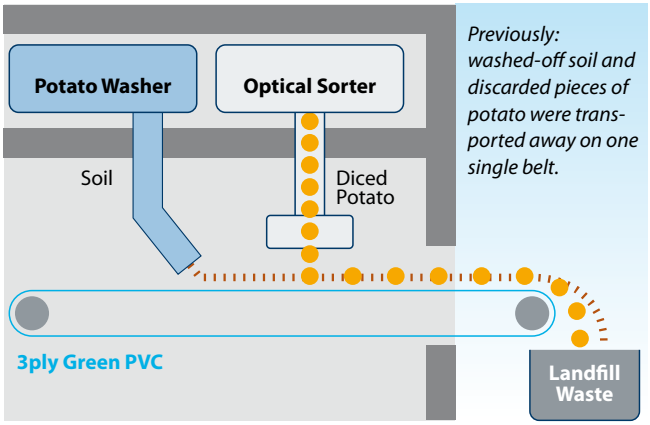
Forbo Siegling swapped the belt, reinforced with steel loops, for a much lighter modular one.

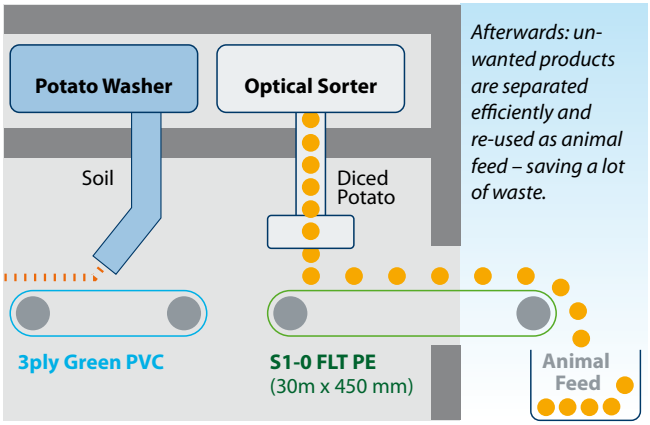
Waste transportation

During potato production, the washed-off soil and discarded pieces of potato were removed separately through a shaft. These waste products were transported outdoors on an around 50-metre long conveyor belt. The conveyor frequently malfunctioned, particularly in winter, because the belt froze when outdoors (see graphic below). Furthermore, the vast amount of waste was very expensive to dispose of. Forbo Siegling suggested separating waste transportation. By adapting the conveyor and by using a plastic modular belt, this section of the process was improved significantly. The Prolink modular belt is resistant to low temperatures. When used to convey the pieces of potato outside, it drastically reduces downtimes and is also an excellent solution in winter. The clean, discarded pieces of potato are now used in the animal feed industry. The soil is transported on a second belt (see graphic below). Waste was cut by around 2080 tonnes/year.

The extra space gained between the two conveyors also allows easier access. Separating the two types of waste was an enormous advantage in terms of optimising processes and costs. Production is much more environmentally friendly as a result.

■ **The benefit:** customised, one-stop solution with belt exchange and clever engineering.





About this publication

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New Transilon type

Blue, hygienic, versatile

A new belt type offers a variety of different usages and extra hygiene safety.

The E 3/1 U0/U0 blue FDA is a single ply belt – and thin at just 0.9 mm. It is a good choice, both as a feeder belt to the shrinking tunnel, for example when repackaging for PE bottles, or when producing dough for bread or bread rolls. The impregnated fabric structure has superb release characteristics for bread and bread roll dough – even in moist and hot provers.

In contrast to traditional cotton belts, the belt complies with the EU and FDA directives. As a result, it fulfils all legal obligations. In comparison to cotton fabric or felt, the impregnated polyester fabric absorbs virtually no moisture – and therefore does not encourage mould or bacteria to develop. The belt's blue colour also provides a good contrast to the product. Thanks to its high level of flexibility and low weight, the new type can replace cotton belts in many bakery industry applications. Its resistance to hydrolysis guarantees long service lives. Test results in the shrinkage tunnels show that when belt temperatures are constantly approx. 80°C, only minimal belt shrinkage occurs. Even when widths are greater, the belt also runs perfectly over knife edges. Therefore it remains dimensionally stable in packaging machinery – so even accumulation conveying is possible. The belt will be launched this autumn. If you're interested, send a mail to benefit.food@forbo.com

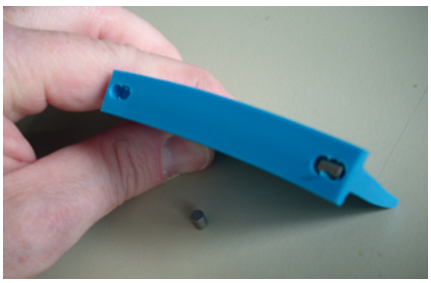
■ **The benefit:** a new belt type in blue for the bakery and packaging industry.

Solenoid switches in lateral profiles

Clever metering – with solenoid switches

If required, Forbo Siegling will make lateral profiles with solenoid switches

These are particularly suitable for conveying goods that are to be metered, or positioned by the conveyor belt, where the in-feed process is controlled by a switch contact.



This is a solution that Forbo Siegling has already implemented for a leading German food company at the highest level of hygiene. The belt is used to convey olives to the portioning machinery. A magnetic switch is integrated into the conveyor. When the profile with the piece of metal passes by the switch, a timed filling process is triggered. In other words, the portioner opens and the mixture of olives, herbs and liquids is filled into the jar or bag.

By welding the profile to the belt, the piece of metal is securely "coated" with plastic, in other words it is virtually hermetically sealed. Direct contact to the food is therefore excluded.

■ **The benefit:** hygienic, magnetically supported metering by hermetically sealing the piece of metal in the belt. A solution for magnetically controlled process functions.

Industry News

ATEX – what's that all about?

In Europe, explosion protection is governed by the European directive on preventing ignition risks due to explosive atmospheres (ATEX = ATmosphère EXplosive). But what does this mean in real terms for the food industry?

The directive combines two directives, the ATEX product directive 94/9/EC and the ATEX 1999/92/EC workplace directive. It applies to all European Union member states and to all machines and equipment that are, or have been put on the market there.

The food industry also has processes that are affected by ATEX. When grinding grain in mills for example, explosive dust-air mixtures can occur that can cause serious explosions. Another example is conveying flour to bucket conveyors. Affected are also stirrers and blenders in the food industry, in the manufacture of pharmaceutical products and in the chemical industry.

Explosive dust-air mixtures can occur when loading and unloading vehicles that carry grain and during grain storage. An explosive atmosphere (zone 20) is also constantly inside silos that are filled with grain. Outside the silo and in the filling tube, this condition only occasionally occurs, for example when filling or empting (zone 21). Dangerous dust-air mixtures only come about in the rare case that an error is made.

Other regulations on explosion protection, stipulated by various organisations, are in force for the North American region.

■ **The benefit:** For detailed information on the legal and practical aspects of ATEX go to www.forbo-siegling.com >> Industries & Applications >> Food

Forbo Siegling worldwide

New Base in India

India is one of the world's most dynamic markets. For years the country has been considered one of the world's most important growth markets. For this very reason it has become a sought-after place for companies from the west to invest in.

Forbo Movement Systems has also recently opened a sales office there. Contacts to customers in Indian industries will now be managed and developed locally from Pune in the state of Maharashtra.
Contact: India Branch Office, phone +91 204 108 4343, siegling.in@forbo.com

Ask for more info

Please tick your requirements and send this section back to us.

- ☐ New Transilon Type
- ☐ Solenoid switches in lateral profiles
- ☐ ATEX
- ☐ Please call me
- ☐ Visit from sales rep
- ☐ General information on the company

☐ German ☐ English

First name, surname

Company

Function

Road, number

Zip code, place

Country

Telephone

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