Forbo
MOVEMENT SYSTEMS

benefit!

Information for our customers from the food industry Issue 01/10

Siegling Prolink modular belt series 5

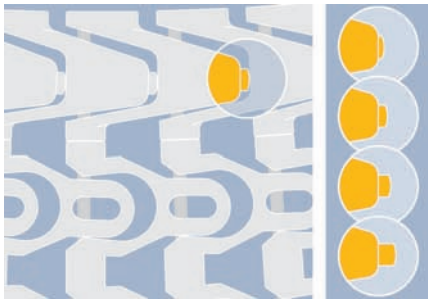
A spiral tower expert

The enhanced series 5 combines all the advantages of plastic modular belts with the robust properties of metal lattice chains.

The Siegling Prolink CM 50/70 series 5 modular belt with steel hinge pins is one of the strongest of its kind on the market. The shape of the modules is ideal for challenging spiral tower applications in particular. Exceptional are the outer modules in seven different lengths which can be used to suit the curve radius required. The different lengths of the outer modules enable customisation of the belts to match the application. Steady belt tracking ensures virtually consistent product positioning over the entire length of the conveyor. In comparison with standard modules, this type is also more durable and quieter.

The combination of plastic modules with steel hinge pins makes the CM 50/70 S5 an extremely robust modular belt with a long service life. The steel adds more weight and therefore ensures the belt lies very flat, curbing the typical tendency for modular belts to tilt upwards.

Another benefit of steel hinge pins lies in their flexural strength, because less transverse bending - compared with plastic hinge pins - means the belt needs less support. A clever feature: the clip system for affixing the hinge pins ensures the modules can be exchanged easily if reuired.



Intelligent modular structure.

■ **The benefit:** consistent product positioning, steady belt tracking, belts do not sag or tilt upwards

In brief

Live at IFFA

Forbo Siegling will be showcasing new solutions for all areas of the meat industry - from slaughtering to packaging - at IFFA in Frankfurt (8 - 13 May 2010, stand D55, hall 9.1). Come and visit us.

EU directive

The transition period for implementing the new EU 1935/2004 regulation and the associated directives elapsed on 7 March 2010. Forbo Siegling's well prepared. Why not contact us?

Bacteria starve on HACCP belts

The better alternative to microorganisms

Why antimicrobial belts are not the best choice - and how manufacturers can also guarantee maximum hygiene without these belts.

In the food industry, safety and hygiene are top priority. Because even minute damage to belt surfaces, for example a hairline crack in the conveyor belt's coating, can allow food to accumulate and bacteria and mould to establish. Which is why food manufacturers often use anti-microbial belts.

These belts use biocides to kill off the microorganisms. But the catch is that biocides only work when in direct contact with microorganisms and only the weakest are killed off. The resistant ones survive, continue to multiply and are difficult to eradicate with this substance. Therefore, an anti-microbial belt is only temporarily effective. To have a permanent impact, the belt would have to be exchanged regularly for a new one with another chemical agent.

Adding biocides to the belt coating, like bactericidal substances, also entails another risk: in contact with food they can also migrate to the food itself. And eating contaminated food can be damaging to people's health - especially if they are susceptible to allergies.

So what can manufacturers do to be on the safe side? "A safe alternative to anti-microbial conveyor belts are our HACCP belts", explains Dr. Marén Hüners, food application engineer at Forbo Siegling. Because the top belt layers only contain materials whose molecular chains bacteria cannot split, or find very hard to metabolise. In other words: after cleaning the conveyor, the belts provide no nutrient base for bacteria - they literally starve. HACCP belts provide protection from microorganism growth. "And we are not simply swapping one risk for another", continued Marén Hüners.

All materials used in the HACCP types comply with EU directive 1935/2004/EC and/or AP 96/(5). They are also BfR and FDA approved. HACCP belts are available as fabric-based conveyor and processing belts (Siegling Transilon) and as plastic modular belts (Siegling Prolink).

■ **The benefit:** conveyor belts without anti-microbial agents - less risk for manufacturers and consumers.

To prevent microorganisms growing, Forbo Siegling deliberately refrains from using chemical agents - and offers a much safer solution with its blue and white HACCP belts.

Publication details

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Polyolefin coating material

Conveying sticky products - the perfect solution

Polyurethane and PVC are materials commonly used for conveyor and processing belts in the food industry. But very sticky products - like nougat or caramel - can stick to the belts. When used as a coating, polyolefin has a natural non-stick effect due to its low surface energy. As a result, products do not adhere to the belt and lead to production losses and conveyors soiling.

The E 4/2 A0/A2 MT-HACCP white belt is new in Forbo Siegling's extensive range of polyolefin types. It is ideal for many applications with small returns (> = 10 mm diameter) and has FDA and EU compliance for conveying unpackaged food.

To date, the material has been highly successful in conveying very sticky dough. Flour consumption has been cut drastically thanks to excellent release properties. The quality of the dough improved and costs fell.

Due to the belt's hard coating (Shore A 92) it has already achieved very good results as a cutting belt and where hard, rigid scrapers are used. Furthermore, chemical resistance to cleaning agents and disinfectants is also excellent. Another benefit: in comparison with other materials, polyolefins have long service lives in moist heat (hydrolysis.) Therefore, polyolefin types are very often used when cleaning is a major issue.

■ **The benefit:** top release properties, good resistance to hydrolysis and extreme chemical resistance.

New urethane belt scraper

Gentle and effective cleaning

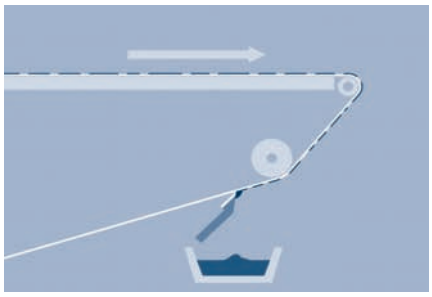
Rigid metal, or hard plastic scrapers can damage the conveyor belt, especially the splice.

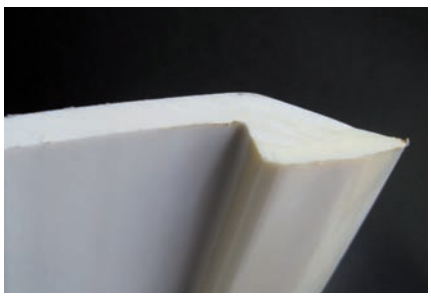
Which is why Forbo Siegling has developed a solution which cleans the belt gently and thoroughly. High-quality urethane in two levels of Shore hardness is combined in the new belt scraper. The harder body guarantees it lies perfectly on the belt, while the softer lip to the scraper adapts to the surface of the belt and ensures the belt is cleaned in the best way possible.

The flexible lip is kind to the surface of the belt and increases its service life in comparison with hard scrapers. Product losses due to inadequately cleaned belts are also reduced. The tough scrapers are available in beige and white for any belt widths. They have already been used successfully by renowned users in dough processing, muesli bar manufacture, as well as in the chocolate and confectionery industry.

Users benefit from constant cleaning of the conveyor belts during the entire production process - without damage to the conveyor belt. Belt-friendly cleaning.

■ **The benefit:** gentle belt cleaning. Product losses drastically decreased. Prevents downtimes from dirty conveyors..





Forbo MOVEMENT SYSTEMS

Mesh belts

More efficient sieving processes

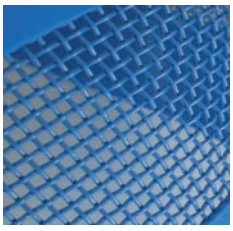
New polyester mesh belts guarantee products and liquids are separated efficiently. When washing vegetables or lettuce, squeezing or drying fruit, good water drainage on the conveyor is vital. Forbo Siegling has introduced mesh belts into its product range for this very purpose. Four different mesh sizes are available. More liquid can drain off the bigger the mesh sizes are. Maximum permeability is 60%.

Belt edge reinforcements that enhance the belts' tracking behaviour are also available as PU and PVC types. The operating temperature permitted depends on the belt edge reinforcement selected. Belts with PVC reinforcements are suitable for -10° to +70° C temperature ranges, polyurethane reinforcements on the other hand from -40° to +100°C.

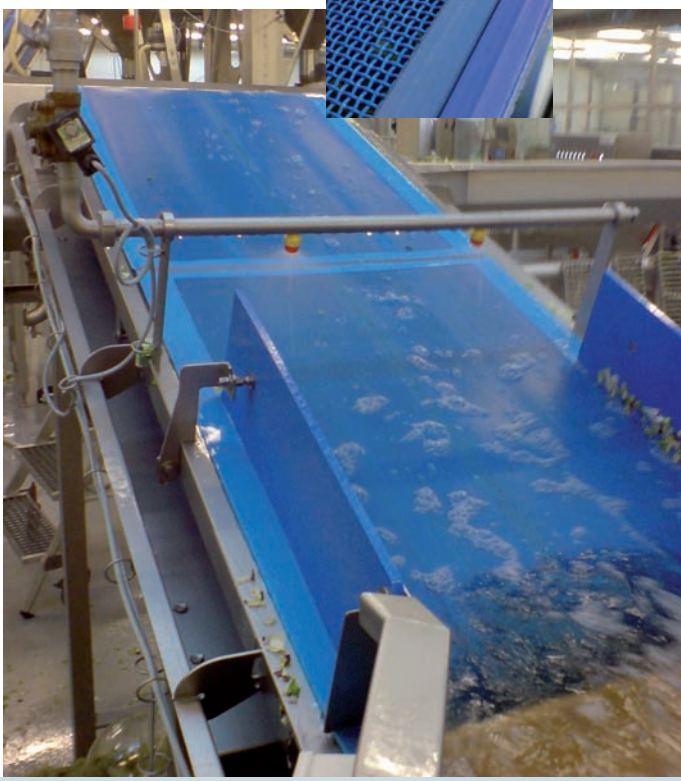
In areas where belts are subjected to even higher temperatures, fibreglass or Kevlar fabric with Teflon as a coating are used. In this case, the operating temperature permitted ranges from -20°C to a maximum of 250°C. The Teflon mesh belts are available in three different mesh sizes.

All Forbo Siegling mesh belts are very resistant to animal and plant fats and oils. In line with the stringent demands on hygiene in the food industry, all types are also FDA compliant and fulfil the regulations specified by EU 1935/2004 regulations for conveying unpackaged foodstuffs. As standard versions, the belts can be supplied in white and blue. On request, PVC or polyurethane guide and lateral profiles can be applied to the belts. Wide mesh sizes, materials or customised versions - for example with combs or caps - are also possible.

■ **The benefit:** an efficient, hygienic and tough solution for separating products and fluids.



A detailed view of the mesh on the belt.



Ask for more info

Or tick your requirements and send this section back by fax to: +49 511 6704 305.

- ☐ Siegling Prolink series 5
- ☐ HACCP belts
- ☐ New polyolefin belt type
- ☐ Urethane belt scrapers
- ☐ Mesh belts

- ☐ Please call
- ☐ Visit from sales rep
- ☐ General information on the company

- ☐ German ☐ English

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