

# Conveying belts

CONVEYING BELTS ARE THE WORK HORSES OF THE FOOD PROCESSING INDUSTRY WITH MANY TASKS TO FULFILL

**+** In the baking business in particular, conveyors and conveying belts have many requirements to meet. They have to move sticky and baked products through tunnel ovens and freezers, transfer the products from one belt to the next, go around curves and move upwards and downwards. They distribute, sort, link and turn. Transport, transfer and process functions must operate correctly and ensure the efficient flow of materials from the feeding area through to the production, followed by filling and packing. Conveying belts come in many different shapes, sizes and materials to suit all product categories in the bakery sector: cotton belts mainly for dough make-up, woven and plastic belts for transportation, steel belts in solid or modular construction and wire belts for the use in ovens.

As all belts come into contact with food, they have to comply with the latest hygiene and other legal requirements (FDA, HACCP, EC, USSA). The main emphasis is placed on hygiene. The developments in this sector are anti-microbial materials and coatings. The conveying equipment that the belts are mounted to have to follow hygienic design requirements which means that frames, feet, drives and all other parts must be easily accessible and easy to clean just like the belts themselves. Of course, the motors used must be splash-proof.

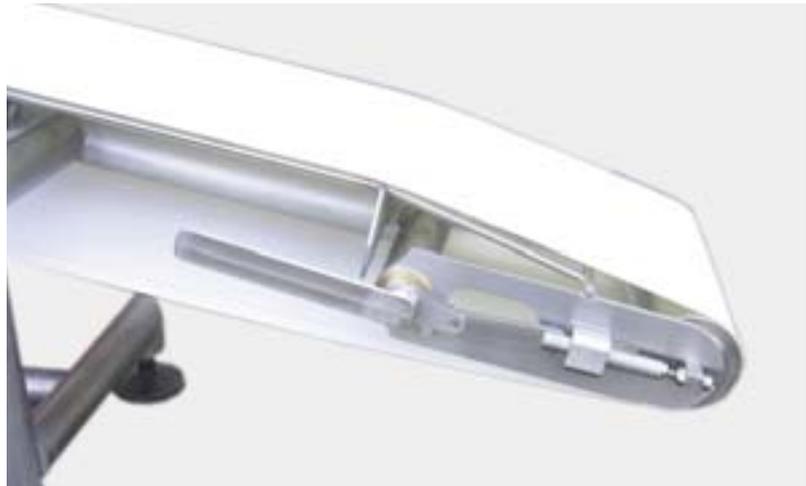
## ++ AMMERAAL BELTECH

Ammeraal Beltech Holding B.V.  
Handelsstraat 1, P.O. Box 38  
1700 AA Heerhugowaard, The Netherlands  
www.ammeraalbeltech.com

Ammeraal Beltech's product range for the baking industry includes cotton and woven belts in different weaving and coating variations, numerous plastic belts which are oil and fat resistant and tolerate high or cold temperatures, as well as modular plastic belts. The company now also offers belts with anti-microbial features. Silver ions are contained in an underlying layer under the coating on the belt which do not come into direct contact with the food. Silver ions limit the growth of bacteria by acting on the capability of cells to create energy. For the European market, the belt's material is covered by a thin coating so that the silver ions can display their effect only on the underside of the belts and in case the coating shows tiny cracks. In the US the belts are used without the additional coating.

## ++ APULLMA

Apullma Maschinenfabrik  
A. Pulsfort GmbH & Co. KG  
Vechtaer Str. 81  
49424 Lutten (Oldb.), Germany  
www.apullma.de



++ Apullma Maschinenfabrik  
Bildunterschrift

Apullma's SuperClean stainless steel conveyors meet the highest hygiene requirements. According to Peter Pulsfort, managing director of Apullma: "The skeleton-like design of the SuperClean conveying belts has been reduced to minimum dimensions. The stainless steel frame is accessible from all sides for easy cleaning. IP66 or IP67 protected motors drive the belts and allow high pressure wash-down of the equipment." The belt's tension can be adjusted with a flick of the wrist resulting in easy and quick cleaning of the entire equipment.

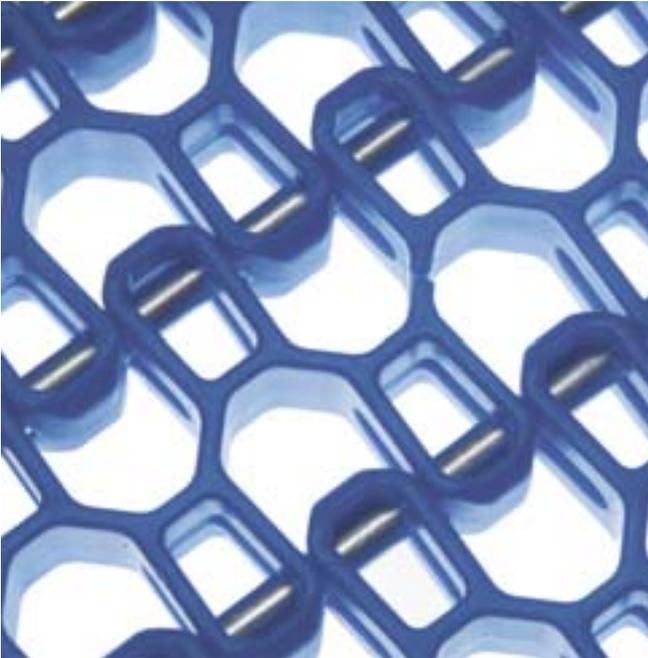
SuperClean equipment is provided with different conveying belts and coatings e.g. silicone, PU, PVC, PE, PA which are – depending on the application – suitable for temperatures between -30°C to +300°C.

## ++ ASHWORTH

Ashworth Bros., Inc.  
450 Armour Dale  
Winchester, VA 22601, USA  
www.ashworth.com

Ashworth manufactures stainless or carbon steel belts for baking, proofing, cooling and freezing processes. Carbon steel belts are usually found in oven or baking applications, while stainless steel is usually used for everything else. The ▶

belts can be designed as straight-running for tunnel ovens and freezers or as spiral/turn-curve for use in spiral coolers, proofers or freezers or in curved sections of transfer conveyors. Advantage is a plastic modular belt that is specifically



**++ Ashworth**  
Advantage 200 modular belt

designed with stainless steel cross rods, so that the plastic modules can be thinner. According to Ashworth, their Advantage belts feature a unique and extremely hygienic design that is quick and easy to clean. Most importantly, it has been independently tested as the world's first and only plastic spiral belt to be NSF Certified, which proves it can be cleaned easily. Their Advantage line of "hybrid" spiral/turn-curve belts are produced with stainless steel rods and Acetal (plastic) surface modules.

Advantage belts have an operating temperature range of -45° to 82° C; but in particular, these belts are excellent spiral freezer belts.

#### **++ BERNDORF**

Berndorf Band GmbH  
Leobersdorfer Strasse 26  
2560 Berndorf, Austria  
www.berndorf.at

Baking, cooling and freezing processes expose steel belts to extreme mechanical and thermal stress. Berndorf Band steel belts are made to cover these high requirements. The belts meet the strictest hygiene requirements and can be used at temperatures of up to 400°C. The belts are characterized by precision levelness and abrasion resistance as well as by their straight tracking. For the baking industry, Berndorf offers Carbo 13, a belt with a uniform dark, heat-absorbing surface which ensures the highest product quality and optimal energy efficiency.

#### **++ GREENBELTING INDUSTRIES**

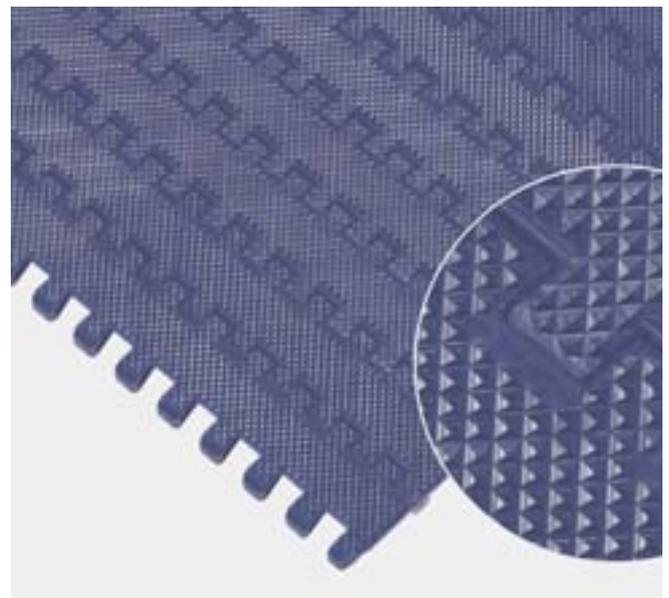
Greenbelting Industries Inc.  
45 Comet Street  
Buffalo, New York 14216, USA  
www.greenbelting.com

The company manufactures a line of high performance PTFE belts specifically designed to meet the needs of the tortilla industry. The superior non-stick properties ensure excellent release which is of significant benefit. Other factors that also come into play include: dimensional stability, flexural strength, transverse strength, tensile strength, compressive strength, splice strength, abrasion resistance, puncture and tear resistance, chemical resistance as well as a high temperature resistance of up to 290°C.

#### **++ HABASIT**

Römerstrasse 1, P.O. Box  
CH-4153 Reinach BL, Switzerland  
www.habasit.com

Habasit's contribution to higher safety levels in the food industry are their HyGUARD® and HabaGUARD® conveyor belts which contain an antimicrobial additive. The belts from the Cleanline® range are coated with a modified polyolefin displaying excellent release properties, therefore minimizing problems such as soiling of belts and hygiene risks. These belts are also moisture-resistant and not susceptible to chemicals. Special features available are the TPU non fray and frayless belts, which minimize contamination due to



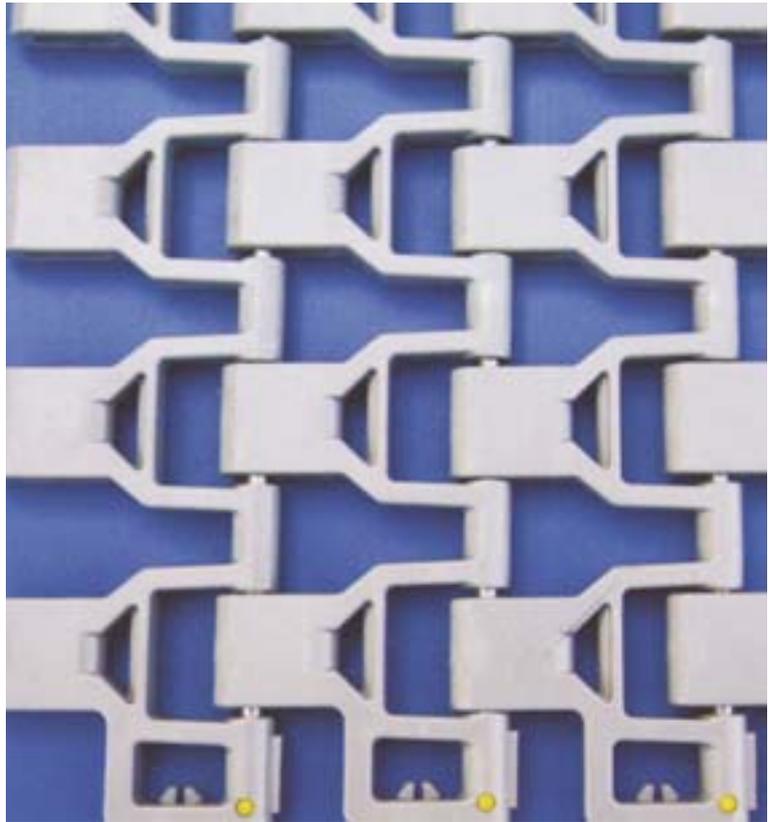
**++ Habasit**  
Currently Habasit is in the process of launching the new HabasitLINK® M2516 Diamond Top 1" with diamond top embossing

their specific fabric construction. Habasit's belts are usually used at ambient temperatures. Special belts are suitable for use at higher temperatures (silicone up to 200°C, PTFE up to 250°C).

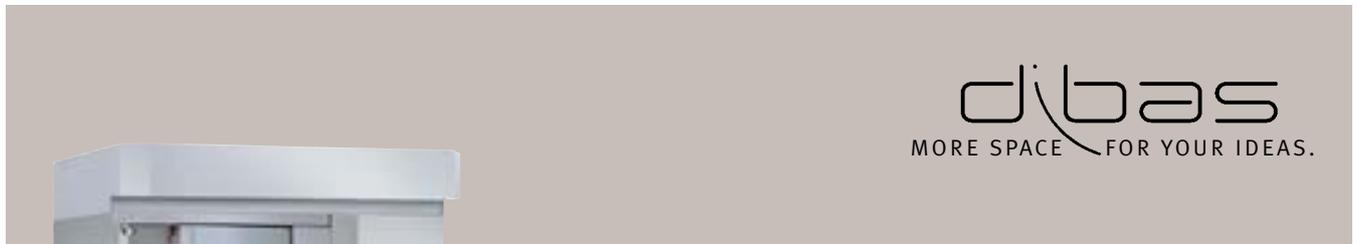
**++ KAAK MULTI PARTS B.V.**

P.O. Box 16, 7060 AA Terborg  
 Varsseveldseweg 20a  
 7061 GA Terborg, The Netherlands  
[www.kaak.nl](http://www.kaak.nl)

Since the beginning of 2007, the Dutch Kaak Group has had its own subsidiary selling conveying systems and belts independently from the other companies within the Group. The most important point: all belts, curves, linear sections, feet and hanging features are standardized. This allows the parts to be combined just like a modular construction set. This approach does not only guarantee reasonable prices but also reduced the times for tenders and delivery. An offer is supplied within two days and delivery takes places latest six weeks after the order has been placed. The belt range consists of several multi-curve and multi-way variations. The modular plastic belt Multi-Curve consists of honeycomb-type plastic parts linked to each other with metal rods. Due to the special design of the honeycomb parts, they can interweave with each other to form a curve. The metal rod is also telescopic and can extend again after the curve.



++ Kaak Multi Parts  
 Multi-Curve Modular



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**++ SIEGLING**

Siegling GmbH  
Lilienthalstraße 6/8  
30179 Hannover, Germany  
www.siegling.com

Leading belt manufacturer Siegling has extended its range of blue belt types. The striking contrast to the goods conveyed equals improved hygiene because soiling is certainly more recognizable and seen at an earlier stage. Optically-controlled sorters, like those used in packaging sectors, depend on an ideal contrast and require “blue” as a background color. The whole process chain, from the raw dough to the packaged loaf can normally be handled entirely with blue belts. Siegling can provide blue products for curves, inclined and accumulated conveying, knife edges and even elastic spreading belts. It is not important as to whether fabric-based synthetic belts or modular belts (link-chain belts) are required. Siegling can provide both product groups in different shades of blue. Even profiles with grip and belt edge sealing (for fabric belts) are available in blue.



**++ Siegling**  
Blue belts increase food safety

The Siegling HACCP product types provide an additional hygiene benefit to particularly hygiene-sensitive operations, for example the permeable ProLink belts for cooling conveyor. The surface does not provide a breeding ground for microorganisms and the belts are ideally protected from microbial contamination without adding biocidal substances to the belt's material.

**++ REXNORD**

Rexnord Flattop Europe B.V.  
Einsteinstraat 1  
2691 GV, s-Gravenzande, The Netherlands  
www.rexnordflattop.com

Rexnord introduced its 1010 series of 1 inch pitch modular belts to cater for the increasing demands from the food processing industry for improved hygiene and more easily cleaned products. This successful product range has now

been enhanced by new flights for the transport of pieces. The flights have a maximum height of 4 inch and are ideal for transporting baked goods on inclined conveyors. The de-



**++ Rexnord**  
1010 MatTop chains with flights for the transport of baguettes

sign of the belts and the flights allow optimum cleaning, making 1010 belts highly suitable in all food processing operations where the belts come into direct contact with food. The 1010 belts are moulded to widths of up to 24 inch to ensure proper handling of delicate food. The bottom of the module is curved, improving drainage and reducing the drying time of the chain after cleaning. Rexnord mat chains used for the transport of baked good are supplied with Microban® anti-microbial protection as standard. This reduces the risk of harmful bacteria multiplying on the chain.

**++ WIRE BELT**

Wire Belt Company of America  
154 Harvey Road  
Londonderry, NH 03053, USA  
www.wirebelt.com

Compact Grid is Wire Belt's latest innovation in conveying belts. Compact Grid is engineered specifically to handle smaller, delicate products, while providing a lighter weight, open-mesh belt design with excellent performance. Compact Grid's rugged framework offers maximum strength under significant loads, reducing the number of belt replacements over time. Installation on any conveying system is quick and easy. These belts made of stainless steel can transport delicate products from the oven straight into the freezer. The rugged but open design makes this belt the perfect solution for cooling freshly baked products in high-volume, with high-throughput processes. For the tortilla industry, Wire Belt has developed TC-327 which is made of high-quality stainless steel, and provides optimal product support. The smaller spacing increases the total number of spaces across the width of the belt, providing maximum product support and optimal belt strength. TC-327's tighter pitch also means that there will be less product scrap from tortillas getting caught in the belt. The heat of the product is conducted away preventing the tortillas from becoming wet or moist. TC-327's 76% open surface area allows maximum air flow through the belt to completely cool tortillas. **+++**