volta™
Belting Technology

The Next Step
in **Belting**

Poultry Industry

Conveying Solutions

Poultry Industry | Volta Belting Technology

Simply Hygienic Belting for Safe Poultry Processing & Packaging

Volta's homogeneous thermoplastic elastomers (TPE) food grade belts ensure the safe and hygienic processing of raw and cooked poultry. Our highly durable moisture-resistant belts comply with the strictest hygiene requirements for the food industry. Complies with EU, FDA and USDA regulations. Consistent with EHEDG Guideline 43 and are HACCP compatible.

Volta's Clean & Simple Hygienic Solution Hygiene Inspired

With a smooth non-porous homogeneous surface that does not absorb water or grease, preventing product residue and contamination from penetrating the belt to preserve and extend product shelf life. Volta`s DR material specially recommended for applications where there are harsh cleaning and disinfecting protocols in place.

Food Safety Awareness

Made from strong abrasion resistant material that is completely sealed with no cracks, crevices or hinges to support the harboring of micro-organisms, resulting in low bacteria counts and reduced risk of food spoilage and product recall.

Reduce Cost of Ownership

Volta`s high performing belts hold heavy loads and are safe and easy to install. They offers significant savings on processing lines, requiring reduced usage of water and chemicals and allow easier and faster sanitation procedures that do not involve the removal of belts from conveyors thereby saving labor costs and freeing up more production time. With less maintenance, easy on-site repair and reduced production downtime you can concentrate on maximizing your product output.

Environmentally Responsible

Our simple to clean belt design will significantly reduce your water consumption and sanitizing energy, enabling savings on harsh detergents, water treatments and sanitation labor.

Work Safety Awareness

Volta belts run at significantly lower noise levels making the working environment safer. Belt cleanliness and the reduction of dangerous bacterial elements contribute not only to food safety but also to worker safety.

Positive Drive Belting Systems in the Poultry Industry

Volta's SuperDrive™, DualDrive™, Mini SuperDrive™ and Mini DualDrive™ are positive drive belts that meet the strict hygiene standards directed by the food industry. In addition, Volta's range of belt material does not contain the chemical Bisphémol A.

These tough positive drive belts meet the most demanding challenges in the poultry processing industry: they are resistant to cuts caused by knives and bone fragments and can work in high impact applications, absorbing the shock that would fracture or rip other belts. The easy to clean surface keeps contamination risks in check and better preserves the quality of your meat product. With minimal tensioning required, the belts are easy to maintain with low belt wear and tear. Some modular belts with a 2" pitch can usually be changed to Volta's DualDrive™ and 1" pitch to Volta's Mini DualDrive™ positive drive conveyor belt with minimal or no retrofit. Volta positive drive belts clearly offer an improved performance over the modular belts, with their many advantages and conveniences.

"Because of the homogeneous Volta material we find out that these belts were lasting much longer compared to regular PVC multiply and modular belts. We have now in our plant 20 SuperDrive™ belts. Since the SuperDrive™ belts were installed on the new and existing conveyors the headache of bad surfaces, fraying of the sides, unwanted liquids in the belt and broken/missing belt parts stopped at once. We did not change the belts anymore after we bought SuperDrive™ belts. The Dutch VWA food authority and our own quality control measures the bacteria level on the Volta belts and still after 4 years these belts perform excellent. The belts are cost saving for example the aspect of cleaning, less consumption of cleaning water and chemicals we minimize our downtime. Also maintenance has been reduced tremendously. We don`t have to inspect the belt on and on because the SuperDrive™ belt has an integrated teeth row which tracks and guides the belt, no slippage and problems with guiding the belts at all. We saved a lot of money using the Volta SuperDrive™ in our plant."

says Mr.Wim Clazing the owner of Export slaughtery in Holland.

Slaughtering Lines

Volta belts are highly resistant to scratching and impact as well as impervious to water, body fluids and fats. The belts are suited to difficult work on slaughter lines and enable the most effective control of pathogens by means of CIP or cost effective disinfection. No other belt technology hinders the development of bacteria like thermoplastic belts.

Chilling

Poultry coming out of chilling systems is volatile and sensitive material and handling on a flexible yet firm surface is essential. Thermoplastic belting provides the most hygienic conditions and Volta Positive Drive technology prevents slipping and off-tracking even under water.

Evisceration Lines

Volta belts can transfer blood and organs with a minimum of spillage, making the working environment cleaner and safer as well as permitting the hygienic collection of delicate material.

Portioning

These lines are often characterized by hands-on work with the ensuing dangers of human intervention. Conveyor belting must be of both the highest hygienic standard and the most failsafe mechanical construction - only Volta belts fulfill these criteria.

Volta offers a wide range of textured top belts for the slicers, dicers and flatteners.

Pre-Cooked and Breaded portions

Volta material is ideally suited to handling the excess fats and particles that accumulate on lines where processed poultry is handled. Thermoplastic materials permit fast and cost -efficient wash downs combined with durable custom-made fabrications that permit elevation and automated handling of irregular portions and the accompanying residue.

Sausages, Nuggets, Ground meat

Many factories are involved in further processing and the more the product is handled, the greater the risks of contamination. The added investment in the foodstuff being processed makes any loss due to contamination more expensive than for raw foods. Volta belts are used extensively to handle sausages and minced poultry.

Volta fabricates a special right-angled profile (65/90) for use on sausage transfer machines. The non-stick IRT & ITO50 texture surface tops provide excellent product release as well as reduced waste in the Hamburgers processing lines. Special flexible belts are also available for Hamburger pressing machines. These can be supplied with a variety of easy to clean textures for efficient product release.

Packaging & Shock Freezing lines

Conveyors for handling packed materials can often be the source of mechanical failure and involve the waste of time for maintenance staff and expense. Volta fabricates long-lasting belts which also protect against cross-contamination. The Volta SuperDrive™ LT (Low Temperature) material can be used for conveying to and from IQF lines and withstands temperatures of down to -35° Celsius. The thick homogeneous material will not break (like modular belts can) or peel (like plied belts may). Belts can be perforated to allow air circulation.

Metal Detectors

Metal Detectors are an integral part of all food lines. Where open food is checked, Volta metal detectable (MD) offer enhanced hygiene and even for packed food they will last longer and give more reliable service by reducing the incidences of calibrating the detection unit and other maintenance issues which go with belt changeovers.

Feather Collection

Waste product and bi-product is often a difficult issue in food factories and more so for feathers which are full of harmful organisms. Safe handling can only be done on a fully homogeneous belt which gives both hygienic and mechanical safety as well as ensuring good containment of the bi-product.

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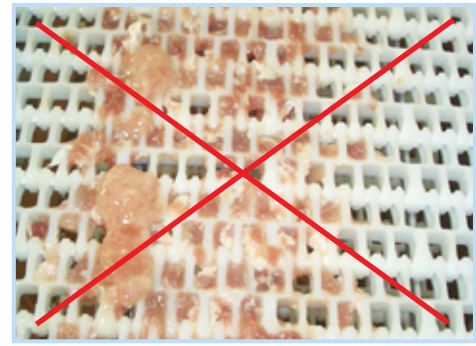
Homogeneous Belting for Longer Belt Life & Better Hygiene

In comparison with plied belts:

- Plied mono-filament style belts typically require finger splicing methods requiring more sophisticated belt welding equipment compared to the simple butt welding process offered by Volta style homogeneous materials.
- Flights on a plied belts are only adhered to the thin layer of material which cannot withstand flexing from product weights and in time tear away from the base belt. Volta offers solid welded flights that cannot detach from the base belt even when carrying heavy loads.
- Plied belts can be susceptible to fraying on the edges and can delaminate between the plies causing finger splice belts to fail prematurely. This problem is accelerated when frozen or abrasive products are carried. The damage on the belt becomes a breeding ground for bacteria, which in turn contaminates the product and releases very bad odors associated with decay.
- Volta's homogeneous material and the sealed and recessed edge belt technologies prevent bacteria from absorbing into the belt and contaminating products on the conveyor.

In comparison with modular belts:



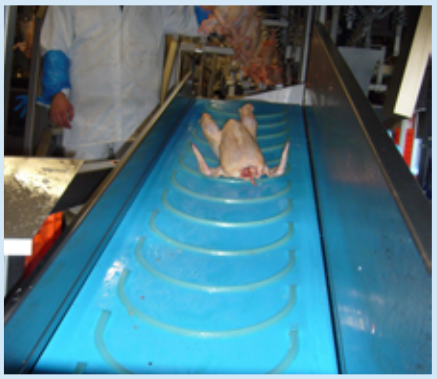
- Modular belts with the brick layered design and use of hinges and pins prove to be very difficult to clean effectively.
- To obtain the required bacteriological results and a truly sanitized belt, plastic modular belts typically need to be removed from the conveyor and soaked for hours in high concentrations of chemicals or be subjected to high pressurized washing resulting in increased water and chemical usage, and manpower hours.
- When subjected to conveying heavy or frozen products, their brittle and fragile structure breaks and chips easily. This feeds undetectable hard plastic fragments into the food they are carrying. The common argument that modular belts are selfservicing due to their easily replaceable parts does not take into account the high risk of contamination to the processed food or the additional high costs of replacement parts.

EHEDG HYGIENIC ENGINEERING & DESIGN GROUP EUROPEAN COMPANY MEMBER

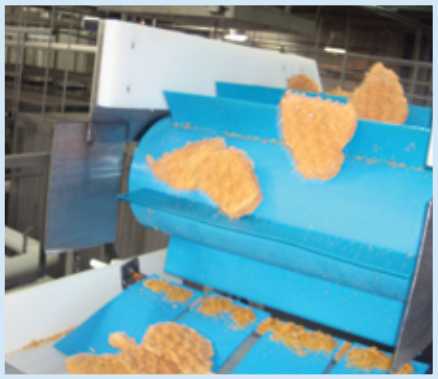
EHEDG members and co-authors of Guidelines 43

Poultry Industry

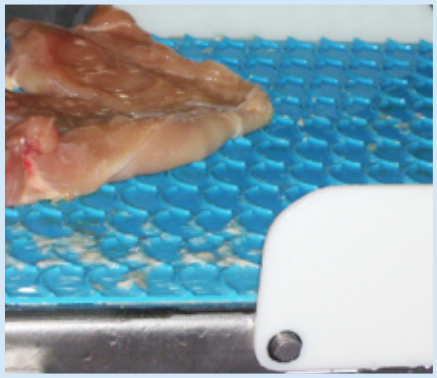
SuperDrive™ on portioning line



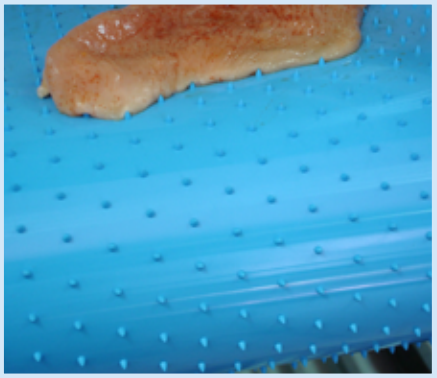
Portioning line



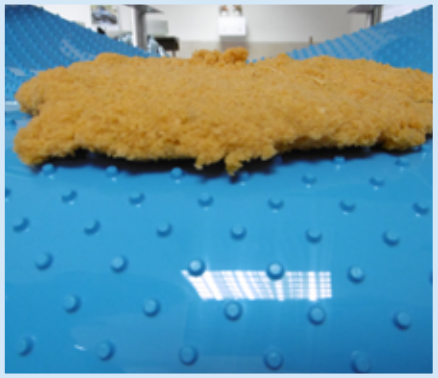
DualDrive™ on breaded chicken breast line



Crescent Top (CT) Texture



Spikes (SP) Texture



Impression Nub Top (INT) Texture

Meat Cleat (MC) Texture

Impression Roof Top (IRT) Texture

Frozen nuggets

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