



The Next Step in **Belting**



Pet Food Industry

Conveying Solutions

Simply Hygienic Belting for the Safe Manufacturing of Pet Foods

Cross contamination of Salmonella (even after taking pre-conditioner and extruder “kill steps”) and odor control are among the most common challenges facing the pet food industry. Volta’s homogeneous thermoplastic elastomer (TPE) food grade belts ensure the safe and hygienic manufacturing of dry and wet pet food. Our highly durable moisture resistant belts comply with the strict hygiene requirements of the food industry, EU No.-10/2011, 1935/2004, 2023/2006 and relevant amendments. Complies with the Requirements of Code of Federal Regulations (CFR21) USDA FDA article 21 CFR 177.2600. Supports the HACCP concept.

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 prolong product shelf life.



Food Safety Awareness

Made from strong abrasion resistant material that is completely sealed with no cracks, crevices or hinges that can harbor micro-organisms. The belt enables low bacteria counts and a reduced risk of Salmonella and E. coli contamination.



Reduce Cost of Ownership

Volta’s high performing belts hold heavy loads and are safe and easy to install. They offer significant savings on processing lines, requiring reduced usage of water and chemicals and allowing 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 less 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 treatment and cleaning labor.



Work Safety Awareness

The belts run at lower noise levels making the working environment safer. Belt cleanliness and the reduction of dangerous bacterial elements and belt odors contribute not only to product safety but also to a safer working environment.

Homogeneous Safety & Quality

- ✓ **Advanced Cleanliness** - the easy to clean surface of our belts minimizes downtime for sanitation and waste management while extending production time and controlling belt odor.
- ✓ **Homogenous Structure** - with no moving parts that can harbor the growth of bacteria and no fabric layers that can soak up water, delaminate or fray to contaminate your product.
- ✓ **Improved Shelf Life** - reduced bacteria growth on your assembly lines will improve the quality of your meat products and extend shelf life.
- ✓ **Hydrolysis Resistance** - the tough belt material is impervious to fluids including blood, oils and fats.
- ✓ **Self-Tracking** -our SuperDrive™ positive drive system has a built in guide mechanism that prevents off-tracking and requires minimal tensioning for reduced belt wear and tear.
- ✓ **Substitution Option** - some modular belts with a 2” pitch can usually be changed to Volta’s DualDrive positive drive conveyor belt with no retrofit.
- ✓ **Easy On-Site Repair** - keeping downtime to a minimum for improved productivity.

SuperDrive™ and the DualDrive™ belts

These tough positive drive belts meet the most demanding challenges in the pet food 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 to better preserve the quality of your product and keep belt odors at a minimum. With minimal tensioning required, the belts are easy to maintain with low belt wear and tear.

The SuperDrive™ and the DualDrive™ belts clearly offer an improved performance over modular belts.

✓ Cutting Lines

Volta's tough TPE belts are very resistant to cuts and abrasion and highly sustainable for this application. The belts will remain hygienic for longer and can be cleaned easily and effectively without having to be removed from the conveyor. Cuts are superficial and clean out perfectly as the belt structure is dense and homogeneous even inside the cut.



✓ **Offal Lines** producing pet food varieties from organ meats and require a belt surface that will preserve the product from mechanical or bacterial damage. Volta's smooth anti-absorbent surface will out-perform all other belts with its high resistance to blood, fat and grease. Your profits are maximized through significant cuts in waste.



✓ Minced Meat Lines and Extruders

The homogenous surface of the belt prevents liquid from leaking through conveyors for increased product yield. The belts are easy to clean, minimizing the risks of contamination and product rejection. Volta's SuperDrive™ belt prevents off-tracking and works with minimal or no tensioning.



✓ Frozen Gradients

The belts will not abrade even from constant contact with frozen products. As a result, the possibility of belt fragments entering the product, which cannot be traced by metal detectors, is virtually eliminated (a problem that is common with more breakable modular belts). Where high durability and hygiene levels are essential, homogeneous belts can be relied on to ensure the highest standards observed to safeguard the meat product.



✓ Canning Lines

The Volta RCW “can cable” is an extremely strong thermoplastic profile with a reinforced core displaying outstanding wear resistance that makes it especially suitable for conveying full and empty cans. The low friction properties enable continuous smooth conveying on the line. The profile’s non-absorbent character resists oil and water while the reinforced cord prevents stretching. The RCW is Volta’s high performance alternative to steel cables, offered in a choice of reinforcements; Polyester, Steel or Aramid/Kevlar cord.



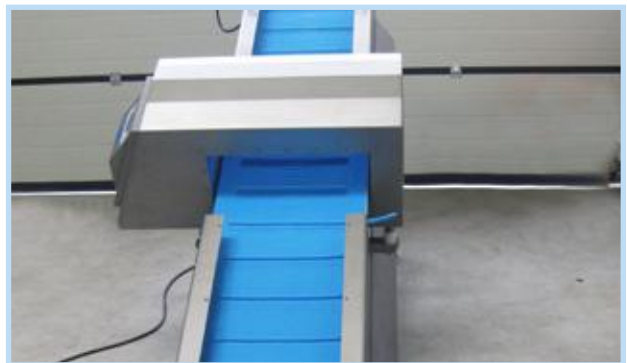
✓ Visual Control

Volta offers food grade flat belts and positive drive belts in a variety of colors including our special blue color for an improved modern image, which gives the required contrast for visual identification of product contamination. This ensures less cross contamination, less risk of product liability and a cleaner belt and conveyor. In recent years, processors found that the blue color also relieves eye strain and improves employee performance. Optical scanners on these lines perform excellently on the blue surface of our belts.



✓ Metal Detectors

Over eighty percent of foreign bodies found in food are metallic and depending on size, these can pose a serious threat to consumers. As a result, the food industry requires the use of metal detectors to detect this contamination. Volta belts are easy to install on metal detectors and can be supplied with the Volta lace system where the detector is designed in such a way as to make standard splicing awkward. Volta’s superior belt longevity means fewer refits over time, resulting in less troublesome re-calibration of these sensitive instruments. Many producers of these devices make Volta their belt of choice for these reasons.



✓ On-site Installation & Repair

Our fully extruded homogeneous belts can be welded easily and efficiently onsite with Volta’s thermo welding tools, making repair and maintenance simple and fast. The tools do not require air and water for cooling, run on single phase power supplies, and can be operated by one person.



Pet Food Processing Benefits with Volta's Homogeneous Belts

Wet Pet Food Processing

According to the Pet Food Institute, except for the ingredients, the general manufacturing process for pet food is similar to that for making processed food. The same federal regulations for making low acid foods for humans apply to manufacturing wet pet food products packaged in cans, bags and trays.

- ✓ Volta's homogeneous, strong and highly durable (abrasion resistant) belts comply with EU, FDA and USDA regulations and handle goods of various sizes, weights, shapes and consistencies; including sharp elements.
- ✓ Our solid TPE belt with its non-porous surface will not absorb fats, liquids, and chemicals, or harbor bacteria or other micro-organisms such as Salmonella or E. coli, which continue to be a major challenge for the pet food industry.
- ✓ The belts' resistance to bacterial contamination and its' easy to clean surface minimizes belt odor and reduces cleaning downtime and waste management while increasing production time.



Dry Pet Food Processing

When developing and formulating dry pet food, manufacturers adhere to the standards set out by the Association of American Feed Control Officials (AAFCO) and the Nutritional Guidelines for Cats & Dogs by the European Pet Food Industry Association, which specify ingredients that best meet all of the animals' nutritional needs. The most common way of making dry pet food is by an extrusion process where the mixed ingredients are fed into an extruder and are palletized into small pieces as they exit the device.

- ✓ Our solid TPE belts are very resistant to cuts and replacement parts. abrasions and can be welded easily and efficiently onsite.
- ✓ Volta's special belts can work at high or low temperatures.
- ✓ Our durable belts offer an improved resistance to the sprays applied to the kibble prior to being sealed in packages, consisting of fats, oils, minerals and vitamins, including the amino acid taurine.
- ✓ Improved cleanliness and homogeneous belt structure reduces the possibility of product recalls.



Homogeneous Belting for Longer Belt Life & Better Hygiene

In comparison with Ply belts:

- ✓ Ply belts (also known as coated fabric belts) are fingerspliced, unlike Volta's homogenous thermo-welded belts which are butt welded.
- ✓ Flights on a ply belts are stuck onto the top thin layer of plastic which cannot withstand flexing from product 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.
- ✓ Ply belts fray at the edges and delaminate particularly on the finger splice. 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 homogenous material and the sealed and recessed edge belt technologies (used in special cases) prevent bacteria from growing on the belt and contaminating products on the conveyor.



In comparison with Modular belts:

- ✓ Modular belts are very difficult to clean effectively, with their hidden joints, pins and recesses.
- ✓ To obtain the desired bacteriological results and a truly clean belt, modular belts must be removed from the conveyor and soaked for hours or cleaned using high water pressure, and then dried thoroughly. This laborious process is costly in water, chemicals, manpower and results in massive downtime.
- ✓ When subjected to conveying heavy or frozen products, their brittle and friable structure breaks and chips easily. This feeds undetectable hard plastic fragments into the food they are carrying. The common argument that modular belts are self-servicing 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.



SuperDrive™ A Homogeneous, Positive Drive Conveyor Belt



EHEDG members and co-authors of Guidelines 43

