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Belting Technology

Volta Belting Technology

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About Volta Belting

Volta Belting Technology Ltd. has been a world leader in the manufacture of Thermoplastic Elastomer (TPE) belting and profiles for over 50 years. Volta Belting's homogeneous belts are known for their high material strength, superior dimensional exactitude and stability. The materials are cut and wear -resistant and impervious to water, oils and other fluids. They are easy to install on-site, with a minimum of contamination to the work area, and, if damaged, can be repaired efficiently by closing tears or replacing sections. Volta belting's positive drive flat belts are uniquely designed to overcome the numerous shortcomings associated with conventional conveyor belts: suitability in wet (even submerged)conditions without off-tracking and without the need for friction rollers, thereby saving on conveyor design and bringing the food processing industry closer to its goal of providing safe, affordable food for all. The food-grade belts are FDA/USDA/USDA Dairy approved and confirm to EC regulations. The materials also support HACCP principles and are suited to CIP procedures. In general industries, the belts come into their own by offering superior durability (for a ''lifetime'') and savings in maintenance and downtime. Volta Belting serves specialized industries such as wood and furniture, paper and packaging production, metal processing, automotive, recycling and mechanized logistic facilities. Volta Belting offers the largest range of round and trapezoid (V) profiles. In a number of key industries, the profiles can be used as rings to drive roller beds. Volta Belting provides experienced sales and technical service support in more than 50 countries, covering major industrial centers throughout North and South America, Europe, Asia and Africa. On site training is available at Volta Belting's main fabrication centers in North America and Europe. Volta Belting's innovative belting technology guarantees extended productivity, lower costs of ownership and optimal operation in every installation.

volta™
Belting Technology

The Next Step in Belting

Fish & Seafood Industry

Conveying Solutions

Motech

Volta: The Right Choice for the Fish & Seafood Industry

Volta's innovative hygienic belting concept supplies the fish and seafood industry with the highest quality and efficiency, providing a cost effective solution which reduces bacteria counts and maintenance costs.

Hygiene, Clean & Simple

Hygiene Inspired

Volta's solid thermo plastic (TPE) materials offer a continuous conveying surface that is non-absorbent to water and resistant to oils or chemicals, thus preventing product residue from penetrating the belt as a contaminant.

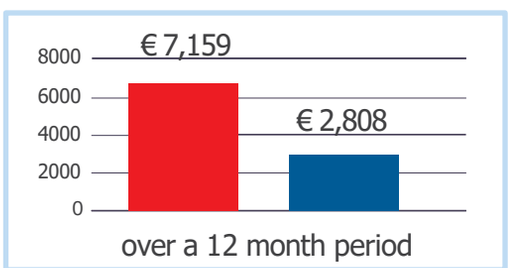
Food Safety Awareness

The smooth surface considerably reduces bacteria levels. Critical Control Points (CCP) are eliminated as the belts do not have cracks, crevices or hinged elements which harbor microbes.

Reduce Cost of Ownership

While improving product quality and shelf-life the surface also facilitates the cleaning of the belt thereby reducing labor and water costs. Belt life is also increased.

The following case study conducted by Volta shows the costs incurred for cleaning in a food processing plant before and after the replacement of a modular belt by a Volta SuperDrive™ belt. Significant savings in cleaning costs (water, water disposal, detergents, and labor) were recorded and direct reports from end users in the fish industry confirm savings in the cost of ownership of between 50% and 70% over a 12 month period, as depicted in the graph below.



One of the simplest ways to improve an entire processing line is by selecting the correct belt. The impact is often unexpected and typically originates from a mix of the above-mentioned benefits.

"I think Volta belts are the best because they are easily installed and cleaned. There are no spaces in the belt for bacteria to harbor, leaving no bad odor caused by bacteria."

Mt. Hung, Director of Hinh Puh, Fish Processing Plant, Vietnam.

Meets international hygiene standards for quality, reliability and food contact.
FDA/USDA Approved. Declaration of Conformity verifying compliance with general requirements (article 3) in EU Regulations No.10/2011/EC, amended with Regulation (EU) 2017/752 and with Regulation (EU) 2020/1245 on plastic materials and articles of FCM, 1935/2004, 2023/2006, German Regulation BfR XXI and U.S. Food and Drug Administration 21 CFR 177.2600 (Rubber Articles). Supports HACCP Food Safety Management Principles.

Trimming and Filleting Fish

Volta belts' strong surface resist cuts, abrasion and bacterial build up and decay. Fish and trimmed waste are conveyed on ultra-hygienic surfaces which retain a minimum of processed material on the return, thereby avoiding cross contamination. Savings accrue by the belts being quick to clean without being removed from the conveyor.

Under Water Conveying

Volta's homogeneous belt material will not absorb water and oils and has no ply. Ply in belts will soak up liquids which develop high concentrations of bacteria and cause cracks to form in the laminated surface. Perforations for drainage are made according to requirement by a smooth punching tool which does not compromise the hygiene of the belt. Further fabrications such as flights and side (containment) walls make this system adaptable to any conveyor and suited to processing in water and on inclined conveyors.

Deep Freeze Applications

The Volta Low Temperature (LT) belt material is unique in its ability to work well in temperatures well below zero either for transporting frozen products or in freezing tunnels. The material does not become rigid and its pliable structure makes it ideal for glazing lines where more brittle belts (modular for example) are worn away by attrition or even broken by the impact of the frozen products.

Weight Checking and Sorting Lines

Volta's homogenneous material does not absorb odors and will reduce contamination in general in the processing room. The solid but flexible construction means that no fibers (typical of frayed plastic-coated ply belts) or broken plastic fragments (typical of modular belts) will be sent down line to weighing and packing.

Canning Industry

A number of products can assist in the canning area from steel- or Kevlar reinforced round profiles to flat belts for magnetic elevators. Special low friction material enables smooth constant conveying even where there is product accumulation on the line.

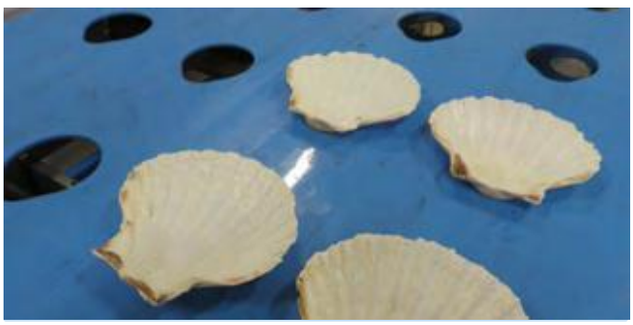
Tuna Processing

Tuna Squeezing and Can Filling.

- Smooth surfaces are extremely hygienic and easy to clean.
- Belts do not absorb liquids, oils or chemicals - no bad odors.
- Material resists abrasion, decay and rotting which arises from a combination of water and bacterial action.
- Can be designed to suit the different tuna processing lines.

Shellfish Processing

The elastic properties of the material resist the harsh impact of sharp shellfish. The belt will not crack or fracture. Clever thermo-welded features can assist in transporting slippery products along horizontal lines and prevent damage caused by avoiding the piling up of delicate high-value product.

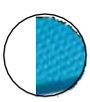


Salmon Processing

The dorsal fins and snouts of some fish (salmon for example) are sharp and stiff and are known to delaminate or even puncture traditional plastic-coated ply belting. Aside from drastically reducing belt life, this type of damage quickly provides a breeding ground for bacteria. Volta belting material has no ply and is highly cut-resistant. It is even repairable in the event of an accident such as a knife piercing the surface.

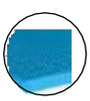
All the other advantages associated with Volta belts will be apparent in these processes; reduced bacteria growth; increased belt life; less downtime for cleaning; savings in maintenance (which includes the advantages of Volta's quick on-site installation tools).

Volta Special Surfaces for particular processing requirements



ITO 50 - Impression Top Oval
Quick release, non-stick surface.

IRT - Quick release, non-stick surface
Gives high grip of oily or wet food products.



ITE Embossed texture
Non - stick top surface.

SP - Spikes are designed for applications requiring grip of amorphous materials such as fresh fish. The spikes are extruded as one with the belt.

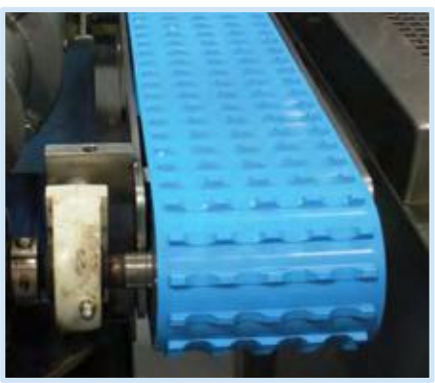
CT - Crescent Top belt for the high grip of bulky soft products such as fish and seafood. Crescent top is ideal on slicers and inclined conveyors.

Process Stage	POSITIVE DRIVE																								
	FHW/FH B-SD	FMW/FM B-SD	FMB-SD LT	FMB-DD LT	FMW/FM B-DD	FHW/FHB	FMW/FMB	FMB-LT	FMW/FMB	FEMW/FEMB	FRMW-CEBB/C	FEMB-ITO50	FRLW-ITO50	FEMB/FELB	Spikes FRG	FZ	FEZ	FK	FELB	FETB	RCW PROFILE
Fish Intake	●	●			●	●	●		●		●										
Wash Down - perforated belt	●	●			●	●	●		●												
Cleated incline-light to medium load	●	●	●		●	●	●		●	●	●										
Cleated incline-extra heavy load	●	●			●	●	●		●	●	●										
Gutting Lines		●			●		●														
Skinner Lines							●														
Filleting Lines	●	●			●	●	●		●	●	●	●	●	●							
Filleting Deboning/ Trimming/ Portion Cutting	●	●			●	●	●		●	●	●	●	●								
Pin Boner Lines														●							
Tuna Squeezing							●			●	●										
Checkweighing							●												●	●	
Grading & Batching	●	●	●		●	●	●		●	●	●	●	●								
Freezing : IQF			●	●				●													
Sorting & cleaning after cooking	●	●			●	●	●		●	●	●										
Fried Fish conveyor							●						●								
Can Cleaning						●															
Metal Detector	●	●	●		●	●	●		●	●	●	●	●	●							
Magneti Elevator						●									●	●	●	●			●

This information is based on our experience in the field over time and should be considered as a general recommendation only.

Hygiene & Product Quality is first priority for leading food producers using Volta.

Fish & Seafood Applications



Special Belt for Surimi

Surimi Conveying

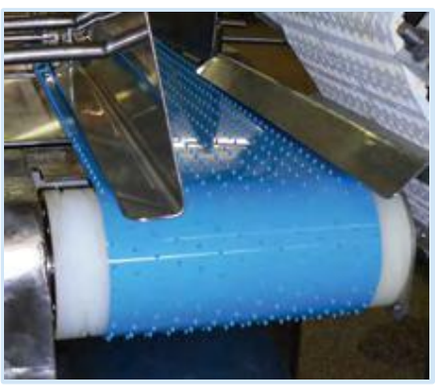
Fish Intake

Fried Fish Sorting

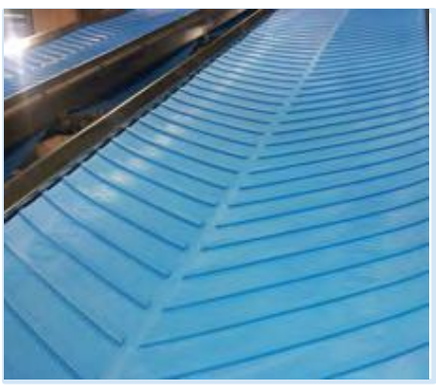
Tuna Squeezing

Portioning Line

On-site Washing



Belt with Spikes

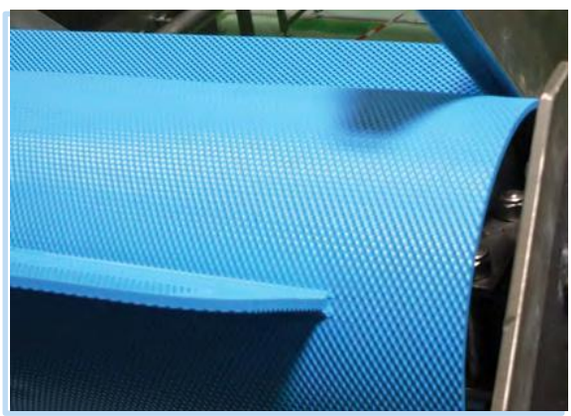


Belt with Special Cleats

Inspection & Sorting

In some plants, the potatoes are then inspected using visual inspection machines which detect brown spots, blemishes, and other imperfections. They also attend to any last residue of 'product' that may be on or in the potatoes. In some cases, inspection takes place after the potatoes have been cut into strips. Volta SuperDrive™ belts have been used on the conveyors that feed the inspection machinery and the takeaway conveyors handling output from the inspection machines. SuperDrive™ belts are also highly successful on takeaway conveyors removing the rejected material which, if safe, is further processed for animal feed.

The Problem: When a French fry is still raw and wet, it tends to stick to the surface of the belting due to surface tension, thus products can travel around the head pulley and then drop - often onto the floor. This was previously corrected by spraying water on the head pulley or attempting to blow the fries off the belt with an air jet. Water is ever more expensive and now considered a finite resource, so avoiding this is necessary.



The Solution: Volta SuperDrive™ with the ITO-50 texture allowed the plants to put an end to the water spraying of the head pulleys as it allows the fries to easily drop off of the belting. The texture is easy to clean and features the benefits of all Volta food-grade materials.

Further (manual) Inspection

However, isolated pieces of 'product' can still make it through the visual inspection machines without being removed. Therefore a person is often stationed next to a troughed conveyor prior to the packaging and ensuing freezing process.

The Problem: The previously mentioned issues of 'stringing' and wear continue to be a problem when using white PVC or Nitrile rubber belts. Additionally, detached cleats add to the foreign bodies that can ride along with the good fries. Furthermore, white belts have been demonstrated as a direct cause of headaches and nausea in inspection personnel.

The Solution: SuperDrive™ belts with small ridge cleats welded using Volta 'electrode' profile have replaced the traditional belts and solved these issues. The small ridges help carry wet French fries up any slight incline commonly used in this process. The blue color is preferred and greatly reduces requests for breaks or headache medications from the inspectors. These belts have been seen to last for many years in some plants.

Our new SuperDrive™ belt with Mini Cleat (MC) top will replace this belts. The fully extruded cleats and the benefits of the positive drive conveying enhances the incline conveyance capability of carrying bulk product on large width belts, usually 36 inches (92mm) wide that run with a trough and usually up an incline by up to 25 degrees. The MC top prevents product rollback on the incline without requiring flights.

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The Next Step in Belting

Tuna Industry

Conveying Solutions

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Conveying Solutions - Tuna

Volta's innovative belting concept accomodates the Tuna Industry to the dot. All our belts and belting products are tailored to your demands.

Tuna Cleaning Table Conveyors?

Volta Positive Drive Line offers you the most clever concept in the Tuna Industry. Easily replaces modular systems, traditional ply belts and supports your HACCP concept.
These belts will solve your conveying problems while keeping your downtime and overall costs low.

- No slippage and off-tracking of the belt
- Smooth homogenous surfaces
- Resistant to water, oil and chemicals
- No bad odor
- Available in Blue, Beige and Off-White
- Long lasting
- FDA/USDA/EU certified

Tuna Squeezing and Can Filling

We offer you a wide range of food conveyor belts that are especially designed for the different tuna processing lines.

- Extremely Hygienic
- No bad odor
- Resistant to decay, rot and abrasion
- Available in Blue, Beige and Off-White
- Available in all popular sizes
- FDA/USDA/EU certified

RCW/ RMW Can Cable

Can Cable belts offer a strong and long lasting solution.
Available in various hardnesses for different applications.

- No bad odor
- Resistant to decay, rot and abrasion
- Strong and hard surface
- Easily spliced
- FDA/USDA/EU certified

Magnetic Elevator

Welding is an easy and reliable task when using Volta welding tools: P-200, W-141 and W-142.

- Easily Spliced
- Long Lasting
- Smooth or embossed surface
- Resistant to cuts

"I think Volta belts are the best because they are easily installed and cleaned. There are no spaces in the belt for bacteria to harbor, leaving no bad odor caused by bacteria."

Mr. Hung, Director of Minh Puh, a fish processing plant in Vietnam.

Tuna Squeezing Belts

Volta offers ultra-hygienic Squeezing Belts suited to all varieties of fish and compatible with all existing models of compressing/ squeezing machine.

Belts are made from thick food grade certified monolithic TPE with embedded cording to cope with the forces that are exerted in even high-speed operations.

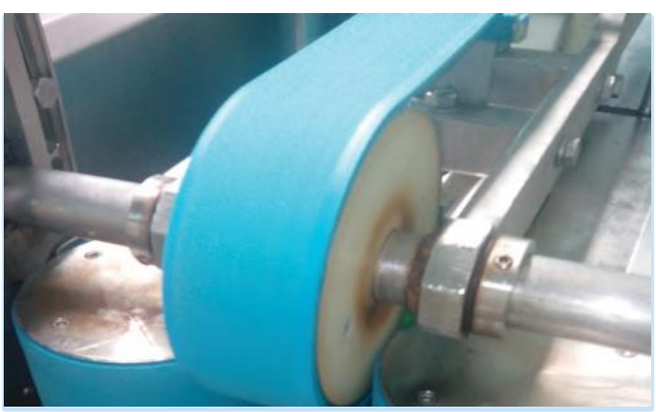
A variety of textures are available on the working surface: Smooth, Diamond pattern (coded IT050) and a Saw Tooth pattern (coded IST). The standard finish is in food grade blue with some models being available in beige.

Standard belt thickness is 5mm for flat versions, 6mm for Smooth top and 6.5mm for Diamond ITO50 and Saw Tooth.

Smooth Belts in Action

Availability:

Blue Belts	Beige Belts
Flat	Flat
Smooth Top	Smooth Top
ITO50 (Diamond)	ITO50 (Diamond)
IST (Saw Tooth)	



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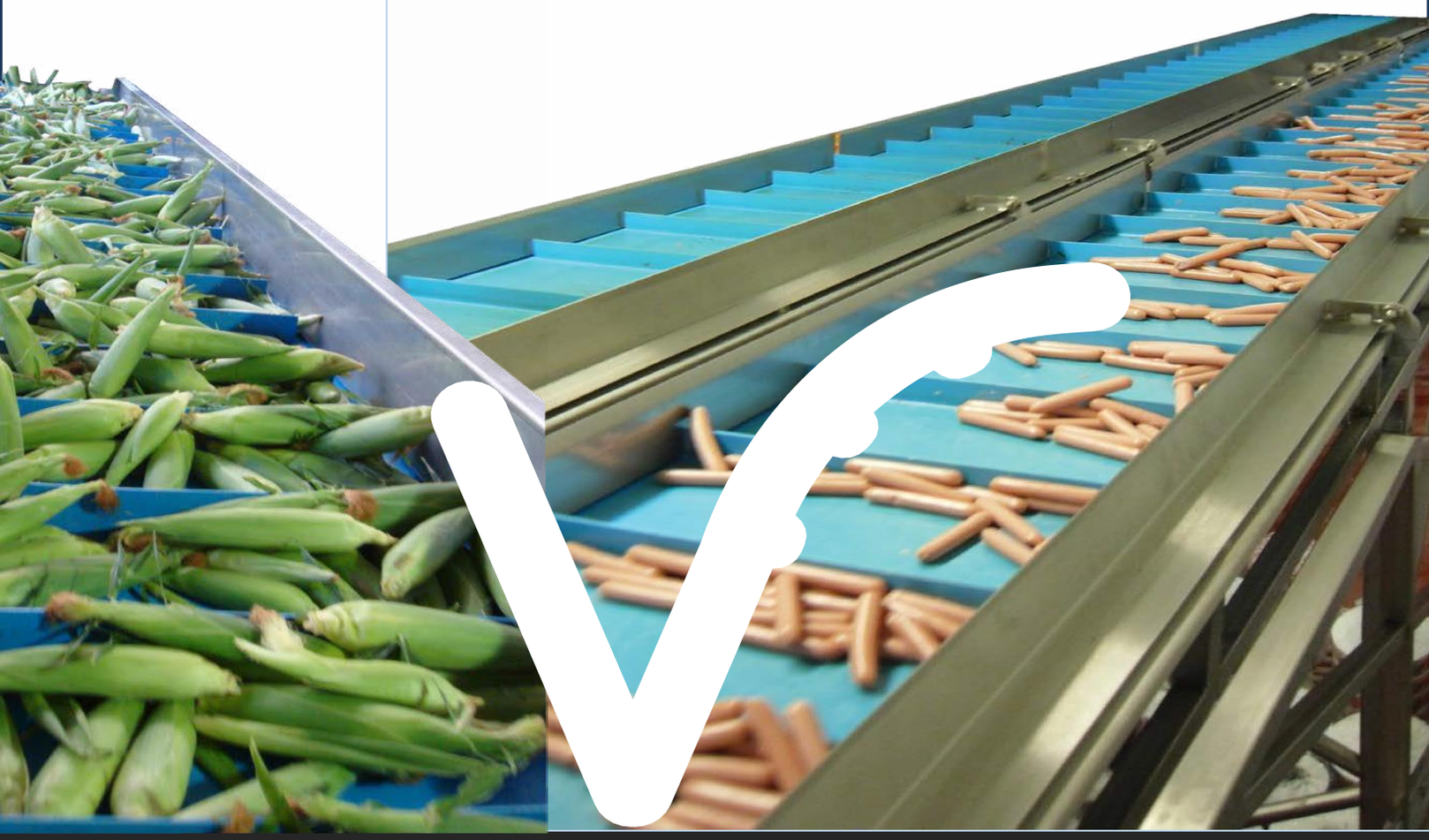


Flat Belts Food Industry

Conveying Solutions

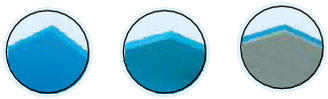
Motech

Volta has been manufacturing belts from homogenous Thermoplastic Elastomer (TPE) materials for over 55 years.
The base belts are cut and abrasion resistant and have no ply or hinged elements which harbor bacteria.
Volta products are the optimal choice where superior hygiene, conveying and cost efficiency are targets.

Product & Color			Shore Hardness	Temperature Range	Coefficient of Friction on S.Steel (Bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 1%		Certifications
						mm	mm	Inch	kg/cm	lbs/in	
Homogeneous Belts											
FHB	Blue16		59D	-20° C to 75°C -5° F to 170°F	0.28	2	70	2 3/4	2	11.20	FDA/USDA /EU
						3	90	3 9/16	3	16.80	
						4	110	4 3/8	4	22.40	
						5	150	5 7/8	5	28.00	
						6	180	7	6	33.60	
FHB	Blue13		59D	-20° C to 75°C -5° F to 170°F	0.28	4	110	4 3/8	4	22.40	FDA/USDA /EU
FHW	Off white		59D	-20° C to 75°C -5° F to 170°F	0.28	1.5	50	2	1.50	8.40	FDA/USDA /EU
						2	70	2 3/4	2	11.20	
						3	90	3 9/16	3	16.80	
						4	110	4 3/8	4	22.40	
						5	150	5 7/8	5	28.00	
						6	180	7	6	33.60	
FMB	Blue		95A/46D	-30° C to 70°C -20° F to 158°F	0.40	2.5	35	1 3/8	1.50	8.40	FDA/USDA /EU
						3	40	1 5/8	1.80	10.10	
						4	60	2 3/8	2.40	13.50	
						5	80	3 1/8	3	16.90	
						6	90	3 9/16	3.60	20.25	
FMW	Beige		95A/46D	-30° C to 70°C -20° F to 158°F	0.40	2.5	35	1 3/8	1.50	8.40	FDA/USDA /EU
						3	40	1 5/8	1.80	10.10	
						4	60	2 3/8	2.40	13.50	
						5	80	3 1/8	3	16.90	
						6	90	3 9/16	3.60	20.25	
FMWC	Clear		95A/46D	-30° C to 70°C -20° F to 158°F	0.40	2.5	35	1 3/8	1	8.40	FDA/USDA /EU
						3	40	1 5/8	1.2	6.70	
						4	60	2 3/8	1.6	9	
						5	80	3 1/8	2	11	
						6	90	3 9/16	2.4	13.4	
FTB	Blue13		72A	-40°C to 40°C -40°F to 104°F	1.25	3	19	3/4	0.57	3.2	FDA/ EU
Hydrolysis & Chemical Resistant (DR) Homogenous Belts											
FDR	Blue15		53D	-30° C to 70°C -20° F to 158°F	0 .55	4	80	3 1/16	2.4	13.5	FDA/USDA/ EU
Low Temperature (LT) Homogeneous Belts											
FMB-LT	Blue15		95A/46D	-35°C to 65°C -31°F to 149°F	0.36	3	40	1 5/8	1.20	6.70	FDA/ EU
						4	60	2 3/8	1.60	9	
						5	80	3 1/8	2	11.20	
						6	90	3 9/16	2.40	13.40	
Metal Detectable (MD) Homogeneous Belts											
FMB-MD	Blue 09		95A	-20°C to 60°C -5°F to 140°F	0.50	3	75	3	1.80	10.1	FDA/ EU

Standard belt width = 1524mm (60”).Some of the belts are also available in 2032mm (80”) width.
Please contact Volta Belting representative for additional information.

Flat Belt Bottom Surfaces



Smooth Embossed Reinforced

Flat Belt Impression Top Surfaces

ITM Matt Top | ITS - 70 Impression Top Square | ITO - 50 Impression Top Oval | ITR -10 Impression Top Rough | IRT Impression Roof Top | SP Spikes | CT Crescent Top | MC Mini Cleats | IST Impression Saw Tooth | INT Impression NubTop | ITP Impression Top Fine Points | ITD - 60 Impression Top Diamond

Homogeneous Embossed Bottom Belts											
Product & Color			Shore Hardness	Temperature Range	Coefficient of Friction on S.Steel (Bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 1%		Certifications
						mm	mm	Inch	kg/cm	lbs/in	
FEHB	Blue 16		59D	-20° C to 75°C -5° F to 170°F	0.20	3	90	3 9/16	3	16.80	FDA/USDA /EU
FEMB	Blue		95A/46D	-30° C to 70°C -20° F to 158°F	0.25	1.6	24	15/16	0.60	3.60	FDA/USDA /EU
						2	30	1 3/16	0.80	4.50	
						2.5	35	1 3/8	1	5.60	
						3	40	1 5/8	1.20	6.80	
						4	60	2 3/8	1.60	9.20	
						5	80	3 1/8	2.10	11.70	
FEMW	Beige		95A/46D	-30° C to 70°C -20° F to 158°F	0.25	2	30	1 3/16	0.80	4.50	FDA/USDA /EU
						2.5	35	1 3/8	1	5.60	
						3	40	1 5/8	1.20	6.80	
						4	60	2 3/8	1.60	9.20	
						5	80	3 1/8	2.10	11.70	
FEMB-MD**	Blue 09		95A	-20° C to 60°C -5° F to 140°F	0.25	2	50	2	0.80	4.5	FDA/EU
						3	75	3	1.20	6.8	
FELB	Blue		80A	-40° C to 50°C -40° F to 120°F	0.45	1.6	10	3/8	0.32	1.79	FDA/EU
						2	12	½	0.40	2.24	
						2.5	15	19/32	0.50	2.80	
						3	20	13/16	0.60	3.36	
FELB	Blue 02		80A	-40° C to 50°C -40° F to 120°F	0.45	1.6	10	3/8	0.32	1.79	FDA/EU
						2	12	½	0.40	2.24	
FELW	White 16		80A	-40° C to 50°C -40° F to 120°F	0.45	1.6	10	3/8	0.32	1.79	FDA/EU
						2	12	½	0.40	2.24	
						2.5	15	19/32	0.50	2.80	
						3	20	13/16	0.60	3.36	
						4	26	1 1/32	0.80	4.48	
FETB	Blue 10		72A	40°C to 40°C -40°F to 104°F	1	1.6	10	3/8	0.29	1.6	FDA/EU
						2	13	1/2	0.36	2	
						3	19	3/4	0.55	3	
Reinforced Belts											
FRMB	Blue		95A/46D	-30° C to 70°C -20° F to 158°F	0.20	2	25	1	6	33.50	FDA/USDA /EU
						3	35	1 3/8	7	39	
FRMW	Beige		95A/46D	-30° C to 70°C -20° F to 158°F	0.20	2	25	1	6	33.50	FDA/USDA /EU
						2.5	30	1 3/16	6.50	36.20	
						3	35	1 3/8	7	39	
						4	70	2 3/4	7.5	42	
FRLB	Blue		80A	-40°C to 50°C -40°F to 120°F	0.20	1.6	8	5/16	4	22	FDA/ EU
						2	10	3/8	5	28	
FRLW	White 16		80A	-40°C to 50°C -40°F to 120°F	0.20	1.6	8	5/16	4	22	FDA/ EU
						2	10	3/8	5	28	
						3	18	11/16	7.50	42	
FRTB*	Blue 10		72A	-40°C to 40°C -40°F to 104°F	0.20	1.6	8	5/16	2.60	14.90	FDA/ EU

Note: Standard belt width = 1524mm (60”).Some of the belts are also available in 2032mm (80”) width. Please contact Volta Belting representative for additional information.

*FRTB-Blue10 - Pull Force (PF) calculated with Finger Splice welding.

**FEMB-MD-Blue09-Metal Detectable belt.

Impression Top Belts

	Product & Color			Shore Hardness	Temperature Range	Coefficient of Friction on S.Steel (Bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 1%		Certifications
							mm	mm	Inch	kg/cm	lbs/in	
ITM	FEMB-ITM-LT*	Blue 15		95A/46D	-35°C to 50°C -20°F to 120°F	0.25	1	10	3/8	0.26	1.45	FDA/EU
ITS70	FELB- ITS70	Blue		80A	-40°C to 50°C -40°F to 120°F	0.45	1.6 2	10 12	3/8 1/2	0.24 0.30	1.40 1.74	FDA/EU
IST	FELB - IST	Blue		80A	-40°C to 50°C -40°F to 120°F	0.45	4**	35	1 3/8	0.40	2.20	FDA/EU
ITD60	FLB -ITD60	Blue 02		80A	-40°C to 50°C -40°F to 120°F	0.55	2	12	1/2	0.46	2.58	FDA/EU
	FELB - ITD60	Blue 02		80A	-40°C to 50°C -40°F to 120°F	0.45	1.8	11	7/16	0.3	1.68	FDA/EU
ITO50	FELB - ITO50	Blue		80A	-40° C to 50° C -40° F to 120° F	0.45	2* 2.5 3 5	12 15 18 35	1/2 9/16 11/16 1 3/8	0.32 0.40 0.50 0.90	1.87 2.32 2.80 5	FDA/EU
	FELB - ITO50	Blue 02		80A	-40° C to 50° C -40° F to 120° F	0.45	3	18	11/16	0.50	2.80	FDA/EU
	FMB-ITO50	Blue		95A/46D	-30°C to 70°C -20°F to 158°F	0.36	2.5	35	1 3/8	1.50	8.40	FDA/USDA/ EU
	FEMB-ITO50	Blue		95A/46D	-30°C to 70°C -20°F to 158°F	0.25	2 2.5 3	30 35 40	1 3/16 1 3/8 1 5/8	0.60 0.74 0.94	3.36 4.20 5.26	FDA/USDA/ EU
	FEMW-ITO50	Beige		95A/46D	-30°C to 70°C -20°F to 158°F	0.25	2.5 3	35 40	1 3/8 1 5/8	0.74 0.94	4.20 5.26	FDA/USDA/ EU
	FEMB -ITO50-MD**	Blue 09		95A	-20°C to 60°C -5°F to 140°F	0.25	2 3	50 75	2 3	0.60 1	3.36 5.6	FDA/EU
ITR10	FELW - ITR10	White16		80A	-40°C to 50°C -40°F to 120°F	0.45	4	25	1	0.70	3.92	FDA/ EU
IRT	FELB - IRT	Blue		80A	-40°C to 50°C -40°F to 120°F	0.45	4	25	1	0.60	3.40	FDA/USDA/ EU
	FEMB - IRT	Blue		95A/46D	-30°C to 70°C -20°F to 158°F	0.25	3.5	40	1 5/8	1	5.60	FDA/EU
Spikes SP**	FELB-SP	Blue		80A	-40°C to 50°C -40°F to 120°F	0.45	2 2.5 3	20 24 28	1 3/16 1 5/16 1 1/8	0.40 0.50 0.60	2.24 2.80 3.36	FDA/USDA/ EU
	FEMB-SP	Blue		95A/46D	-30°C to 70°C -20°F to 158°F	0.25	2 2.5 3	40 45 50	1 5/8 1 3/4 2	0.80 1 1.20	4.50 5.60 6.80	FDA/USDA/ EU
	FEMW-SP	Blue		95A/46D	-30°C to 70°C -20°F to 158°F	0.25	2 2.5	40 45	1 5/8 1 3/4	0.80 1	4.50 5.60	FDA/USDA/ EU
ITP	FELB - ITP	Blue 02		80A	-40°C to 50°C -40°F to 120°F	0.45	2	12	1/2	0.40	2.24	FDA/EU
INT	FEMB - INT	Blue		95A/46D	-30°C to 70°C -20°F to 158°F	0.25	2	50	2	0.80	4.50	FDA/USDA /EU
CT	FELB - CT	Blue		80A	-40°C to 50°C -40°F to 120°F	0.45	3	35	1 3/8	0.60	3.36	FDA/EU
Crescent Top - CT	FMB - CT	Blue		95A/46D	-30°C to 70°C -20°F to 158°F	0.36	3	60	2 3/8	1.80	10.12	FDA/USDA /EU
	FEMB - CT	Blue		95A/46D	-30°C to 70°C -20°F to 158°F	0.25	3	60	2 3/8	1.20	6.75	FDA/USDA /EU
	FEMW - CT	Beige		95A/46D	-30°C to 70°C -20°F to 158°F	0.25	2.5	50	2	1	5.60	FDA/USDA /EU
	FEMB - CT-MD**	Blue 09		95A	-20°C to 60°C -5°F to 140°F	0.25	3	95	3 3/16	1.2	6.75	FDA/EU
Mini Cleats	FELB - MC	Blue		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	40	1 5/8	0.50	2.80	FDA/EU
	FEMB - MC	Blue		95A/46D	30°C to 70°C -20° F to 158°F	0.25	3	70	2 3/4	1.20	6.80	FDA/USDA /EU

Standard belt width = 1524mm (60").Some of the belts are also available in 2032mm (80") width. Please contact Volta Belting representative for additional information.

Note: *FEMB-ITM-LT - Min. Pulley diameter for temperature ≥5°C / 41°F. *FELB-2-ITO50 - not standard.

** FELB-IST - Base - 2mm; total belt height 4mm. **Spikes -Height of Spikes above base belt is 2.8mm.

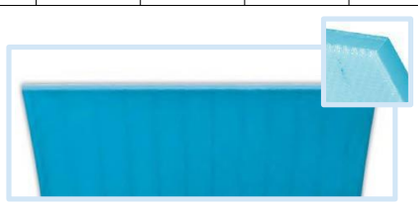
**FEMB-ITO50-MD & FEMB-CT-MD-Blue09-Metal Detectable belts.

Reinforced Impression Top Belts

Product & Color			Shore Hardness	Temperature Range	Coefficient of Friction on S.Steel (Bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 1%		Certifications
						mm	mm	Inch	kg/cm	lbs/in	
FRMB - ITO50	Blue		95A/46D	30° C to 70° C -20° F to 158°	0.20	2.5	32	1 1/4	4.10	24	FDA/USDA /EU
FRMW - ITO50	Beige		95A/46D	30° C to 70° C	0.20	2.5	32	1 1/4	4.10	24	FDA/USDA /EU
						3	36	1 7/16	4.30	25.20	
FRLB - ITO50	Blue		80A	-40° C to 50° C -40° F to 120° F	0.20	2.5	15	9/16	3.20	18	FDA/EU
FRLW - ITO50	White 16		80A	-40° C to 50° C -40° F to 120° F	0.20	2.5	15	9/16	3.20	18	FDA/EU
						3	18	11/16	3.48	21.60	
FRLW - ITR10	White 16		80A	-40° C to 50° C -40° F to 120° F	0.20	4	30	1 3/16	3.40	19	FDA/EU
FRLB - ITS70	Blue 02		80A	-40° C to 50° C	0.20	2	10	3/8	5	28	FDA/EU

Covered Bottom Flat Belts

Ideal for special applications, for example in bakeries and confectioneries where reinforcement is necessary and hygiene cannot be compromised. The fabric reinforcement is thermally- coated with a thin layer of Volta TPE to provide a seal, preventing both contamination and delamination. As an extra precaution, belt edges can be thermo-sealed or recessed to prevent fraying and the ingress of contaminants.

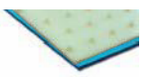


Fabric Reinforcement coated with homogeneous Volta material.

Covered Bottom/ Covered Bottom Impression Top Belts

Product & Color			Shore Hardness	Temperature Range	Coefficient of Friction on S.Steel (Bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 1%		Certifications
						mm	mm	Inch	kg/cm	lbs/in	
FRLB - CEB - B	Blue		80A	-40° C to 50° C -40° F to 120° F	0.30	2	19	3/4	2.20	12.40	FDA/EU
FRLW - CEB - C	White 16				0.30	3	30	1 1/4	2.80	15.60	FDA/EU
FRLW - CB	White 16				0.40	2	19	3/4	3.10	17.40	FDA/EU
FRMB - CEB - B	Blue		95A/46D	-30°C to 60°C -20°F to 120°F	0.30	0.80	12	1 5/13	3.50	19.6060	FDA/USDA /EU
					0.30	3	40	1 5/8	4.80	38	
FRMW - CEB - C	Beige		95A/46D	-30°C to 60°C -20°F to 120°F	0.30	3	40	1 5/8	4.80	38	

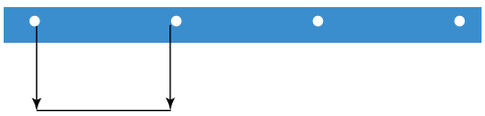
Belt Coating Materials for the Food Industry

Products		GIB*-Blue17	MIB*-Blue17	WIB*-Blue17	FEIB-Blue-17	FEMB-SP-Blue FEMW-SP-Beige	FELB-SP-Blue	FELB-IST-Blue
Illustration								
Description		Super Grip	Multi Grip	Wood Grip	High Grip	Spikes**	Spikes**	Saw Tooth
Hardness		62A	62A	62A	62A	95A	80A	80A
Size (mm)	Width*	50	50	70	1524	1524	1524	1524
	Thickness	4	6	4	2/2.5/3	2/2.5/3	2/2.5/3	4***
CoF (Stainless Steel)		0.98	1.08	1.05	0.95	0.25	0.45	0.45
Temperature Range		-20º C to 40º C				-30° C to 70° C	-40º C to 50º C	
Certifications		FDA/EU				FDA/USDA/EU	FDA/ EU	

Note: *Width - Maximum available width | * For dry use only | ** Height of Spikes above the base belt is 2.8mm | *** FELB-IST - Total belt thickness.

Aramid Cord Reinforced Belts

A food grade flat belt with special tensioning members, hermetically encased in non-porous homogeneous material which has been tested for durability. Used mainly in applications with significant loads on long narrow belts with small diameter pulleys.



10mm / 3/8”

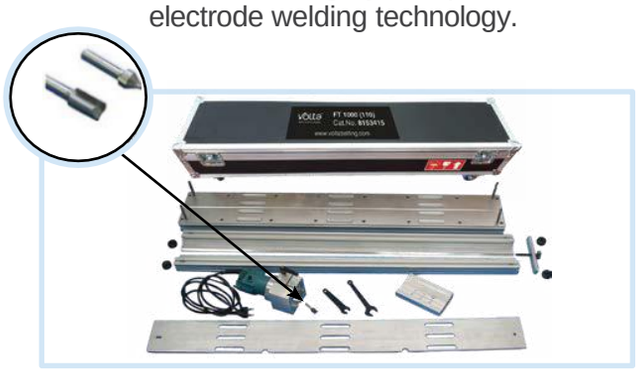
Product & Color			Shore Hardness	Temperature Range	Coefficient of Friction on S.Steel (Bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 0.2%		Certifications
						mm	mm	Inch	kg/cm	lbs/in	
Aramid Cord Reinforced (ACR) Embossed Bottom Belts											
FELB-ACR	Blue		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	20	0.79	4	22.40	FDA/EU
Aramid Cord Reinforced (ACR) Impression Top & Embossed Bottom Belts											
FELB-ACR -ITO50	Blue		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	20	0.79	4	22.40	FDA/EU
FELB-ACR-ITO50	Blue 02		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	20	0.79	4	22.40	FDA/EU
FELB-ACR-IST	Blue 02		80A	-40°C to 50°C -40°F to 120°F	0.45	4*	35	1.38	4.2	23.40	FDA/EU
Low Temperature (LT) Aramid Cord Reinforced (ACR) Impression Top & Embossed Bottom Belts											
FELB-ACR-ITO50-LT	Blue 15		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	18	0.70	4	22.40	FDA/EU
FEMB- LT ITO50-ACR	Blue 15		95A/46D	-35°C to 50°C -30°F to 120°F	0.25	2.5	40	1.57	4	22.40	FDA/EU

Note: Standard belt width = 1524mm (60”).Some of the belts are also available in 2032mm (80”) width.
Please contact Volta Belting representative for additional information.
*FELB-ACR-IST – Base belt thickness = 2mm // Total belt thickness including Saw tooth impression top = 4mm.
Pull force in table relates to a finger splice weld 20x50 mm. The calculation takes into account the weld splice which has strength of 28kg/cm. Note that various finger splice methods and different tools can result in differing belt strengths.

Endless Splicing Techniques

FBW - Flat Butt Welding System The FBW System performs a butt-weld, fusing belts edge to edge.

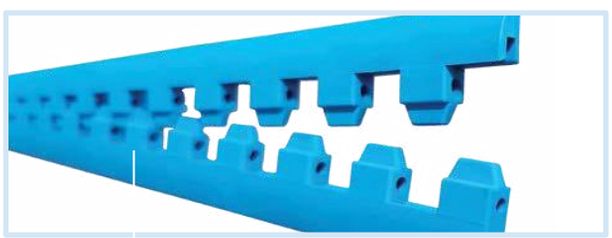
FT - Electrode Welding System
The FT Welding System provides electrode welding technology.



Volta RoundFlex™ Lace

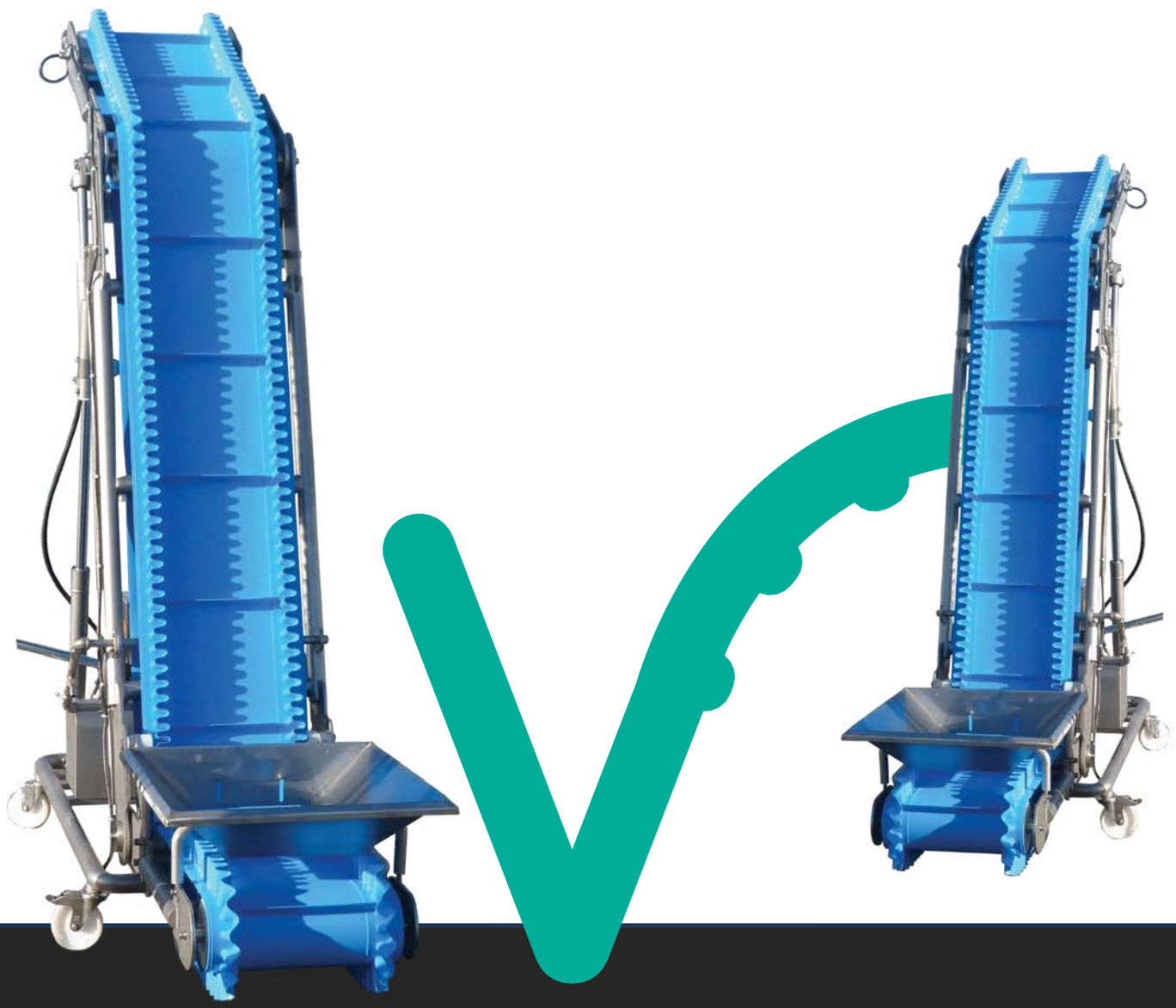
New, improved geometry for a better grip on pulleys. Compatible with Volta MB,MW,MB-MD and DR material belts from 2.5 to 5mm thickness. All Volta flat belt materials are easy to clean without removing from conveyor and therefore lace is used only where absolutely necessary. The strength of the belt will be affected at the joint where lace is used.

RoundFlex™ Lace



volta™
Belting Technology

The Next Step in Belting

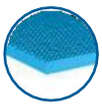


Food Grade Positive Drive Line

Conveying Solutions

Motech

SuperDrive™



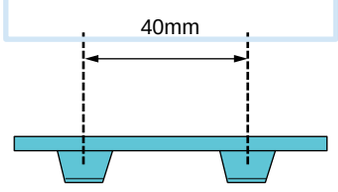
ITE
Impression Top Embossed

ITO-50
Impression Top Oval

MC
Mini Cleats

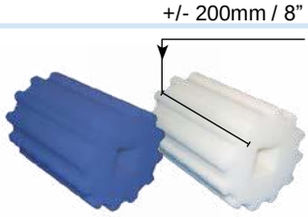
The homogeneous Positive Drive, recognized worldwide as the best choice where hygiene and conveying efficiency are essential.

Product & Color			Shore Hardness	Temperature Range	Coefficient of Friction on UHMW	Thickness	Minimum Pulley Diameter		Maximum Pull Force		Certifications
						mm	mm	Inch	kg/cm	lbs/in	
Smooth Top SuperDrive™ Belts											
FHB-SD	Blue 16		55D	-20°C to 90° C -5°F to 194° F	0.20	3	126	4 31/32	7	39.2	FDA/USDA/EU
						4	176	6 15/16	9	50.40	
						6	300	11 13/16	14	78.40	
FHW-SD	Off White		55D	-20°C to 90°C -5°F to 194°F	0.20	3	126	4 31/32	7	39.2	FDA/USDA/EU
						4	176	6 15/16	9	50.40	
FHB-SD	Blue 13		55D	-20°C to 90°C -5°F to 194°F	0.20	3	126	4 31/32	7	39.2	FDA/USDA/EU
						4	176	6 15/16	9	50.40	
FEHB-SD-ITM2	Blue 16		55D	-20°C to 90°C -5°F to 194°F	0.18	3	126	4 31/32	7	39.2	FDA/USDA/EU
						4	176	6 15/16	9	50.40	
FMB-SD	Blue		53D	-20°C to 70°C -5°F to 158°F	0.28	3	80	3 1/4	6.25	35	FDA/USDA/EU
						4	120	4 3/4	8	44.80	
						6	240	9 3/4	12.50	70	
FMW-SD	Beige		53D	-20°C to 70°C -5°F to 158°F	0.28	3	80	3 1/4	6.25	35	FDA/USDA/EU
						4	120	4 3/4	8	44.80	
FMB-SD	Blue 02		53D	-20°C to 70°C -5°F to 158°F	0.28	3	80	3 1/4	6.25	35	FDA/USDA/EU
FEMB-SD-ITM2	Blue		53D	-20°C to 70°C -5°F to 158°F	0.22	3	80	3 1/4	6.25	35	FDA/USDA/EU
						4	120	4 3/4	8	44.80	
Impression Top SuperDrive™ Belts											
FHB-SD-ITO50	Blue 16		55D	-20°C to 90°C -5°F to 194°F	0.20	3	126	4 31/32	7	39.2	FDA/USDA/EU
						4	176	6 15/16	9	50.40	
FHB-SD-ITE	Blue 16		55D	-20°C to 90°C -5°F to 194°F	0.20	3	126	4 31/32	7	39.2	FDA/USDA/EU
FMB-SD-ITO50	Blue		53D	-20°C to 70°C -5°F to 158°F	0.28	3	80	3 1/4	6.25	35	FDA/USDA/EU
FMB-SD-ITE	Blue		53D	-20°C to 70°C -5°F to 158°F	0.28	3	80	3 1/4	6.25	35	FDA/USDA/EU
FMW-SD-ITE	Beige		53D	-20°C to 70°C -5°F to 158°F	0.28	3	80	3 1/4	6.25	35	FDA/USDA/EU
FMB-SD-MC	Blue		53D	-20°C to 70°C -5°F to 158°F	0.28	3	100	4	6.25	35	FDA/USDA/EU
Hydrolysis & Chemical Resistant SuperDrive™ Belts											
FDR-SD	Blue 15		53D	-20°C to 70°C -5°F to 158°F	0.30	3	80	3 1/4	4.7	26.3	FDA/USDA/EU
						4	120	4 3/4	6.25	35	
FDR-SD-ITO50	Blue 15		53D	-20°C to 70°C -5°F to 158°F	0.30	3	80	3 1/4	4.7	26.3	FDA/USDA/EU
FEDR-SD-ITM2	Blue 15		53D	-20°C to 70°C -5°F to 158°F	0.22	3	80	3 1/4	4.7	26.3	FDA/USDA/EU
FEDR-SD-ITO50	Blue 15		53D	-20°C to 70°C -5°F to 158°F	0.22	3	80	3 1/4	4.7	26.3	FDA/USDA/EU
Low Temperature (LT) SuperDrive™ Belts											
FMB-SD-LT	Blue 15		95A/46D	-35°C to 65°C -31°F to 149°F	0.30	3	80	3 1/4	3	16.80	FDA/EU
Metal Detectable (MD) SuperDrive™ Belt											
FMB-SD-MD	Blue 09		53D	-20°C to 60°C -5°F to 140°F	0.28	3	100	4	6	33.6	FDA/EU
FMB-SD-ITO50-MD	Blue 09		53D	-20°C to 60°C -5°F to 140°F	0.28	3	100	4	6	33.6	FDA/EU



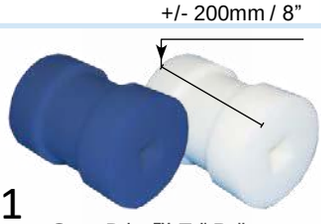
Pitch size for reference only

+/- 200mm / 8”



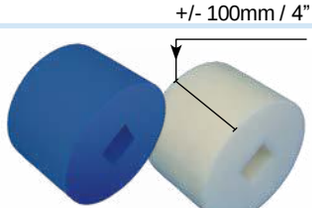
SuperDrive™ Drive Pulley

+/- 200mm / 8”



SuperDrive™ Tail Pulley

+/- 100mm / 4”



SuperDrive™ Support Pulley

Mini SuperDrive™

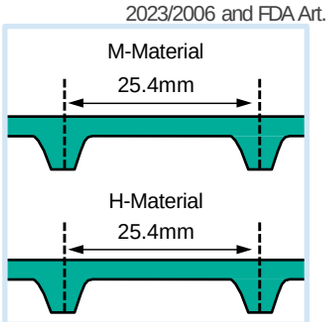
Food Grade - Positive Drive Line

The only trackable Mini Positive Drive product.

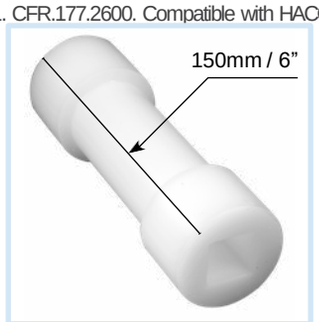
The MiniSD™ design is similar to the world leader, Volta SuperDrive™; scaled down for a smaller minimum pulley.Standard belt width: 1524mm/60”or 2032mm/80”. Please contact Volta Belting representative for additional information.

Product & Color			Shore Hardness	Temperature Range***	Coefficient of Friction on UHMW	Thickness	Minimum Pulley Diameter*		Maximum Pull Force**		Certifications
						mm	mm	Inch	kg/cm	lbs/in	
Smooth Top Mini SuperDrive™ Belts											
FHB-MSD	Blue 16		55D	-20°C to 90°C -5°F to 194°F	0.20	2	80	3.15	4.5	25.2	FDA/USDA/EU
						2.5	100	4	5.6	31.36	
FMB-MSD	Blue		95A/46D	-20°C to 70°C -5°F to 158°F	0.28	2.5	48	1.89	4	22.4	FDA/USDA/EU
Impression Top Mini SuperDrive™ Belts											
FMB-MSD-ITO50	Blue		95A/46D	-20°C to 70°C -5°F to 158°F	0.28	2.5	48	1.89	4	22.4	FDA/USDA/EU
FMB-MSD-MC	Blue		95A/46D	-20°C to 70°C -5°F to 158°F	0.28	2.5	80	3.15	4	22.4	FDA/USDA/EU

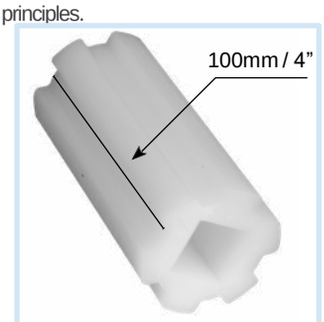
Note: * Minimum Pulley Diameter – Normal Flex. Dimensions are relevant for an ambient temperature above 0°C / 32°F.
** Maximum Pull Force – in kg/cm width & lb/in width.
***To determine the allowable Pull force, check the “Temperature Correction Factor” table.
Declaration of Conformity in compliance with Food Contact Regulations: EU No.-10/2011 amended by 2017/752, 1935/2004 and 2023/2006 and FDA Art. 21. CFR.177.2600. Compatible with HACCP principles.



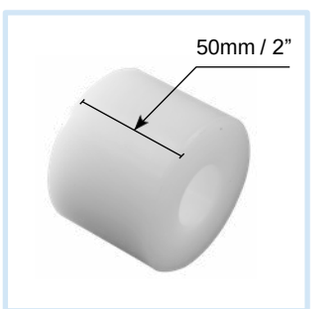
Pitch size for reference only



Tail Pulley



Drive Pulley



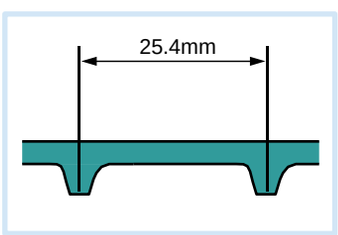
Support Pulley

Mini DualDrive™

A scaled-down version of the original DualDrive™ tooth geometry. Standard belt width: 2032mm/80”.

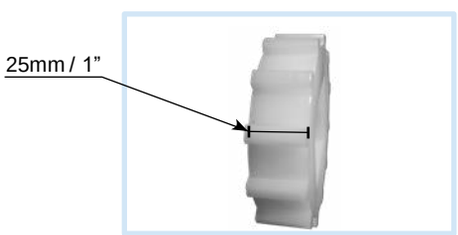
Product & Color			Shore Hardness	Temperature Range***	Coefficient of Friction on UHMW	Thickness	Minimum Pulley Diameter*		Maximum Pull Force**		Certifications
						mm	mm	Inch	kg/cm	lbs/in	
Smooth Top Mini DualDrive™ Belts											
FMB-MDD	Blue		95A/46D	-20°C to 70°C -5°F to 158°F	0.28	2.5	48	1.89	4	22.4	FDA/USDA/EU
Impression Top Mini DualDrive™ Belts											
FMB-MDD-ITO50	Blue		95A/46D	-20°C to 70°C -5°F to 158°F	0.28	2.5	48	1.89	4	22.4	FDA/USDA/EU

Note: * Minimum Pulley Diameter – Normal Flex. Dimensions are relevant for an ambient temperature above 0°C / 32°F.
** Maximum Pull Force – in kg/cm width & lb/in width.
***To determine the allowable Pull force, check the “Temperature Correction Factor” table. Declaration of Conformity in compliance with Food Contact Regulations: EU No.-10/2011 amended by 2017/752, 1935/2004 and 2023/2006 and FDA Art. 21. CFR.177.2600. Compatible with HACCP principles.



Pitch size for reference only

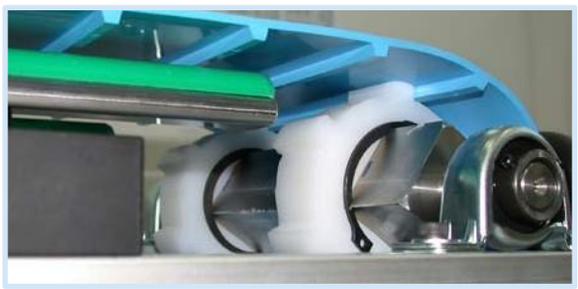
MDD Sprocket

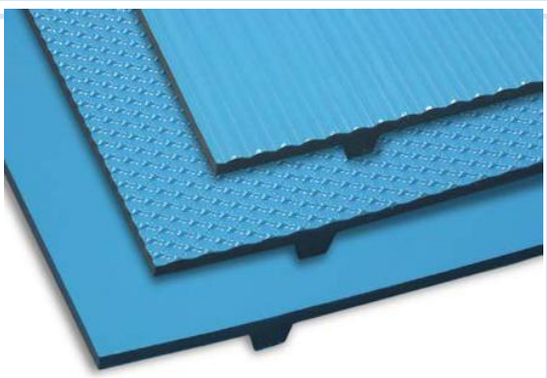


MDD Sprocket

DualDrive™

- Minimal retrofitting required. DualDrive™ is suited to some 2" pitch modular belt sprockets but for both reliability and hygiene these should be replaced.
- DualDrive™ is a fully extruded Positive Drive belt with drive teeth running the full width of the belt at a 2" pitch.





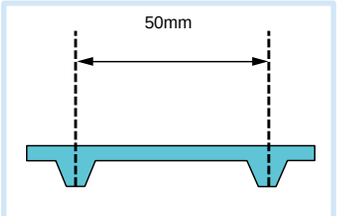
Mechanical Benefits:

- Replaces modular systems that require extensive cleaning and lengthy soaking and wear quickly at the joints.
- Greatly reduced noise levels in comparison with to modular belts.
- Integrated teeth for a Positive Drive with no slippage.
- No pretension of the belt is needed.
- Extruded in 30 or 60m (100 or 200ft) length and 1524mm (60") width.

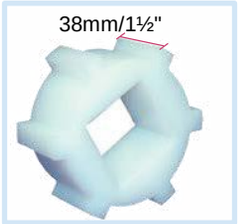
Material Features:

- Smooth or textured homogeneous surface.
- Special texture available for non-stick applications.
- No ply/fraying of fibers.
- Easy and effective cleaning.
- No cracks or crevices that can potentially harbor bacteria.

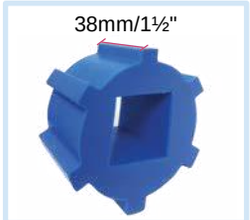
Product & Color			Shore Hardness	Temperature Range	Coefficient of Friction on UHMW	Thickness	Minimum Pulley Diameter		Maximum Pull Force		Certifications
						mm	mm	Inch	kg/cm	lbs/in	
Smooth Top DualDrive™ Belts											
FHB-DD	Blue 16		55D	-20°C to 90°C -5°F to 194°F	0.20	3	126	4 31/32	7	39.2	FDA/USDA/EU
FHB-DD	Blue 02		53D	-20°C to 90°C -5°F to 194°F	0.28	3	80	3 1/4	6	33.6	FDA/USDA/EU
FMB-DD	Blue		53D	-20°C to 70°C -5°F to 158°F	0.28	3	80	3 1/4	6	33.6	FDA/USDA/EU
						4	120	4 3/4	7.7	43	
FMB-DD-ITM2	Blue		53D	-20°C to 70°C -5°F to 158°F	0.28	3	80	3 1/4	6	33.6	FDA/USDA/EU
FMW-DD	Beige		53D	-20°C to 70°C -5°F to 158°F	0.28	3	80	3 1/4	6	33.6	FDA/USDA/EU
FMW-DD-ITM2	Beige		53D	-20°C to 70°C -5°F to 158°F	0.28	3	80	3 1/4	6	33.6	FDA/USDA/EU
Impression Top DualDrive™ Belts											
FMB-DD-ITO50	Blue		53D	-20°C to 70°C -5°F to 158°F	0.28	3	80	3 1/4	6	33.6	FDA/USDA/EU
FMB-DD-IRT	Blue		53D	-20°C to 70°C -5°F to 158°F	0.28	4	100	4	6	33.6	FDA/USDA/EU
Hydrolysis & Chemical Resistant DualDrive™ Belts											
FDR-DD	Blue 15		53D	-20°C to 70°C -5°F to 158°F	0.30	3	80	3 1/4	4.7	26.3	FDA/USDA/EU
FDR-DD-ITM2	Blue 15		53D	-20°C to 70°C -5°F to 158°F	0.30	3	80	3 1/4	4.7	26.3	FDA/USDA/EU
Low Temperature (LT) DualDrive™ Bel											
FMB-DD-LT	Blue 15		95A/46D	-35°C to 65°C -31°F to 149°F	0.30	3	80	3 1/4	3	16.80	FDA/EU
Metal Detectable (MD) DualDrive™ Belt											
FMB-DD-MD	Blue 09		53D	-20°C to 60°C -5°F to 140°F	0.28	3	100	4	6	33.6	FDA/EU



Pitch size for reference only



Machined Drive Sprockets



Machined Drive Sprockets

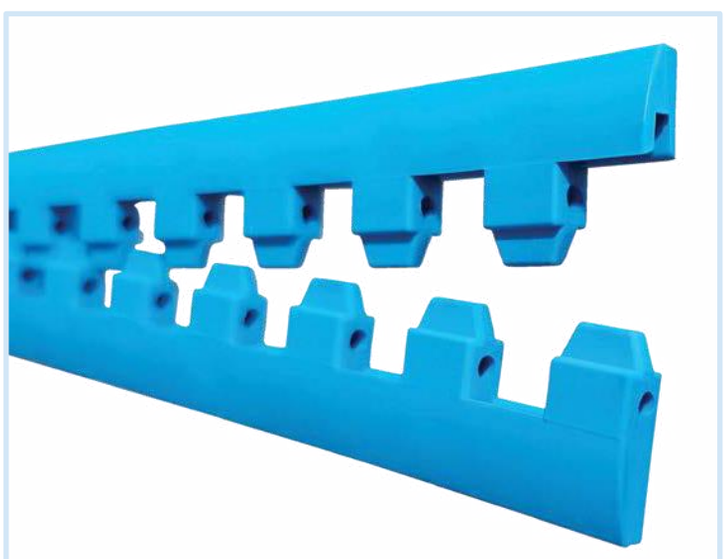
Molded Drive Sprocket

Molded Tail Roller

Volta RoundFlex™ Lace

New, improved geometry for a better grip on pulleys. Compatible with Volta MB,MW,MB-MD and DR material Flat and Positive Drive belts including MSD & MDD belts from 2.5 to 5mm thickness.
All Volta belt materials are easy to clean without removing from conveyor and therefore we only recommend lace when absolutely necessary. The strength of the belt will be affected at the joint where lace is used.

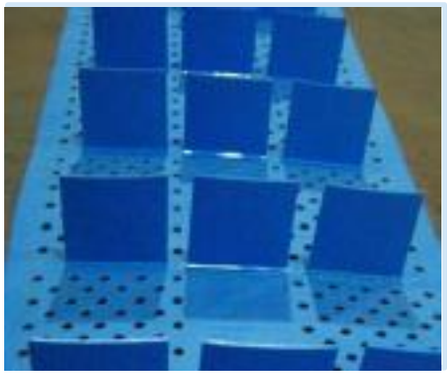
RoundFlex™ Lace



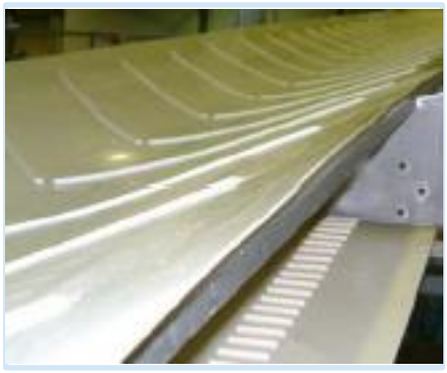
RoundFlex™ Lace

We are committed to providing a complete package focusing on servicing our customers all the way, up until the belts are safely installed and the conveyor is running smoothly.

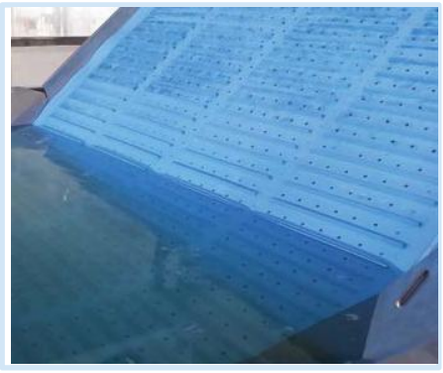
Fabrications on Positive Drive Belts



Perforated SuperDrive™
with Spaced Flights



SuperDrive™ Trough Conveyor with
Chevron Flights



Perforated Mini DualDrive™ Belt

Mini SuperDrive™ Belt

Perforated DD-IRT Belt

SuperDrive™ Z-elevator with Flights,
Guides and Sidewalls

DualDrive™ with Impression Top IRT
Flights & Guides

SuperDrive™ with Flights Working
under Water

SuperDrive™ with Sidewalls
and Special Flights

Volta™ Belting Technology

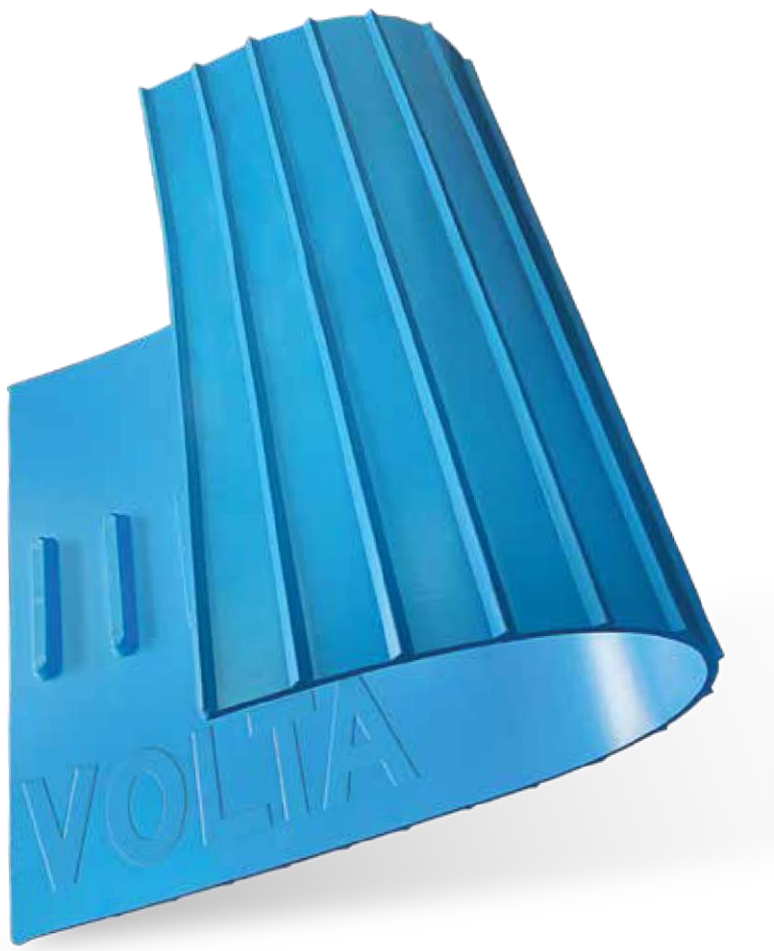
The Next Step in Belting

New SuperDrive™ Belt with Mini Cleat (MC)

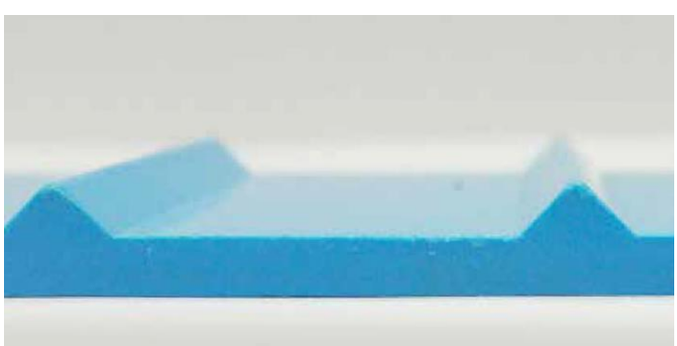
The built-in guide mechanism and the new textured top keep your product safe and steady.

We are excited to present our new Positive Drive Belt: FMB-SD-MC

- The fully extruded Mini Cleat (MC) top on our SuperDrive™ homogeneous material enhances the incline conveyance capability of carrying bulk product by up to 25 degrees.
- The MC profile prevents product rollback on the incline without requiring flights.
- Mini Cleat (MC) top eliminates the need for fabricated cleats.
- The fully extruded, integrated teeth of the Super Drive™ function as a positive drive system and serve as a built-in guide mechanism to reduce tension and off-tracking.
- The result is eco-friendly SuperDrive™ belts that allow for a drastic reduction in water usage as well as the conversion of precious lost time spent on cleaning to increased production time.
- SuperDrive™ belt with Mini Cleat (MC) top are a cutting-edge solution for the potato, meat, fruit, and cheese industries. Suitable applications include, but are not limited to, French fries, chicken cutlets, cold cuts, bacon, sliced peaches and pears, shreded cheese, and nuts.



Use this belt to keep your products safe and steady and earn more money than before.



volta™ Belting Technology
The Next Step in Belting

Molded BLUE Sprockets for DualDrive™

Molded Drive Sprocket

Molded Tail Roller

Volta offers molded sprockets in blue Acetal for the DualDrive™ belts.
These are offered in addition to the standard white and blue machined sprockets.

DualDrive™ Molded Sprockets

Number of Teeth	Drive Sprocket	Tail Roller
6T	DD-I-Sprocket-93.4mm/3.67"	DD-I-Tail Sprocket-84.3mm/3.32"
8T	DD-I-Sprocket-125.6mm/4.94"	DD-I-Tail Sprocket-116.5mm/4.59"
10T	DD-I-Sprocket-157.7mm/6.20"	DD-I-Tail Sprocket-148.5mm/5.85"

- Compatible with 40mm and 1.5” square bore shafts
- Have excellent chemical and abrasion resistance
- Light weight
- Easy to clean

volta™
Belting Technology

The Next Step in Belting

Metal Detectable Flat Belts

Conveying Solutions

Motech

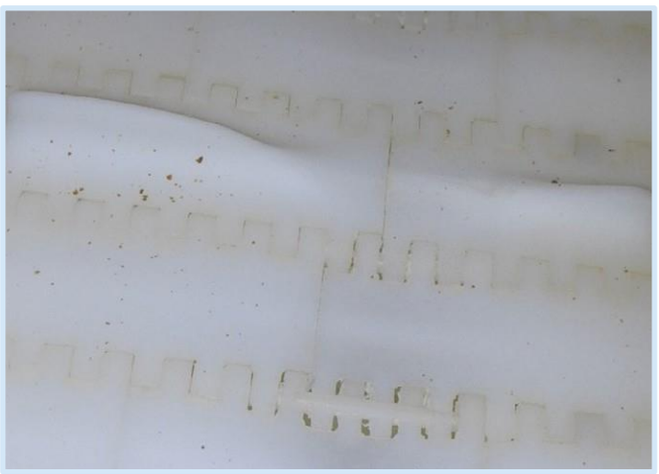
Metal Detectable (MD) Volta belts for the food industry

As you are aware, consumer safety has become a prominent issue in recent years due to heightened public awareness, increasingly stringent legal regulations, and the challenging responsibility of managing an automated food processing line. The ever-changing demands and pressures for superior food safety are driven internally by managers along with external pressures from consumers, industry regulators, and global associations.

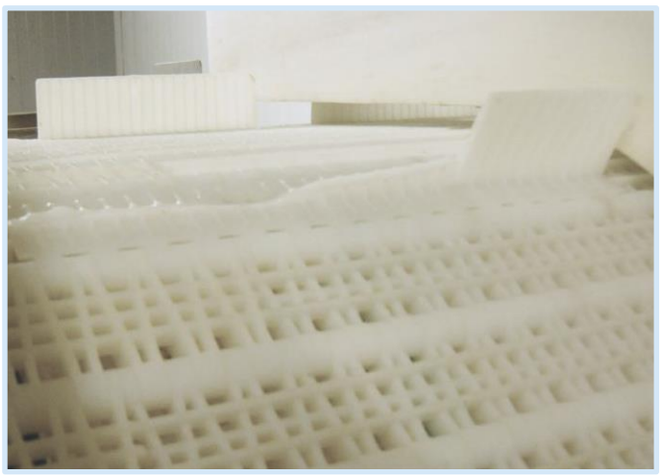
Often called “farm to fork”, the path from raw food to a finished and packaged product is one that has hazardous contact points. Before consumers have their food on their tables, that food has come into contact with harvesting equipment, slaughterhouses, freezers, cold storages, a wide array of transportation means, and various processing machinery. Although most contaminants (much of which is ferrous) are removed in early processing stages, trace contaminants can still remain in foods. Thus, metal detection is often used as a last line of defense in most processing facilities.

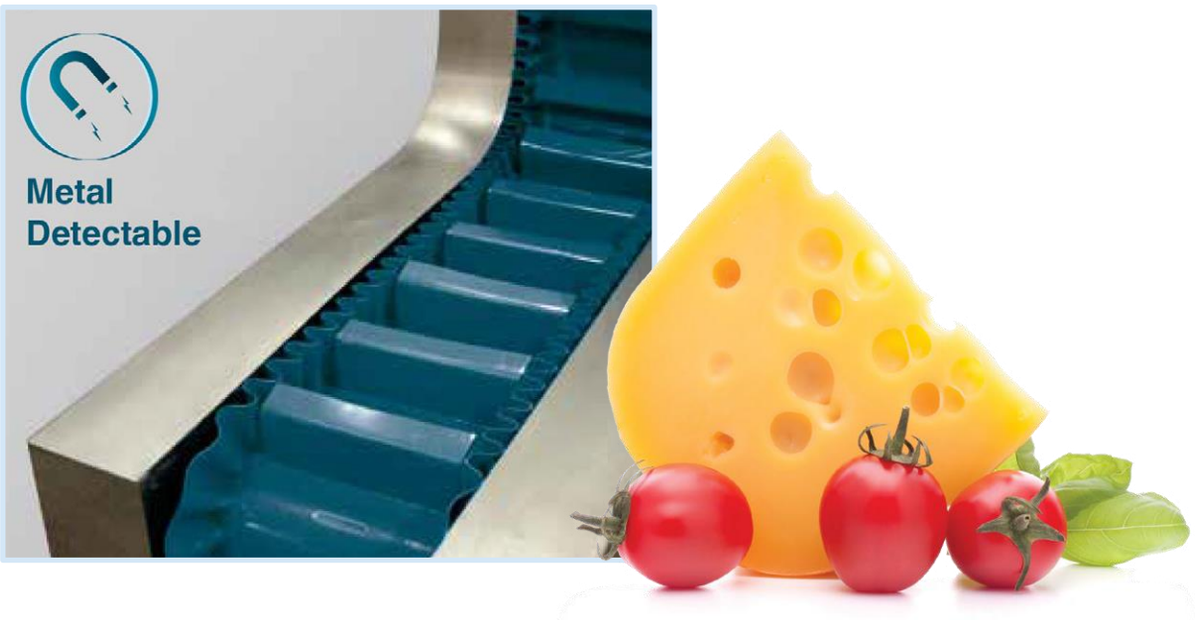
Food routinely makes contact with conveyor belting and with the widespread use of fragile modular belting, concerns arise over plastic contaminants being deposited into the flow of food due to wear and tear. Volta firmly stands behind the safety and stability of all Volta food grade belts as a solution for alternative inferior belting types. Our ultimate goal is to eliminate any concerns and fears held by processors and consumers regarding food safety.

Abraded by Frozen Food



Broken cleats/flights





Metal detectable plastic is an important necessity to all types of food processors. Many would never consider allowing pens, electric ties, and plasters within the hygienic zone if they were not detectable.

While Volta Belting's materials are resistant to cuts and breakage, food grade metal detectable belts have been developed to meet high demands and to give quality assurance and production teams the confidence in knowing that their products will meet the strictest food safety requirements.

Detectability is determined by contaminant type, size, the size of the detector's aperture, the orientation of the detectable material, and the frequency at which the detector is calibrated. Small particles may pass undetected if the food product has a similar phase angle to the contaminant (dry and moist products produce different signals), or if the particle passes through the center of a sufficiently large detector.

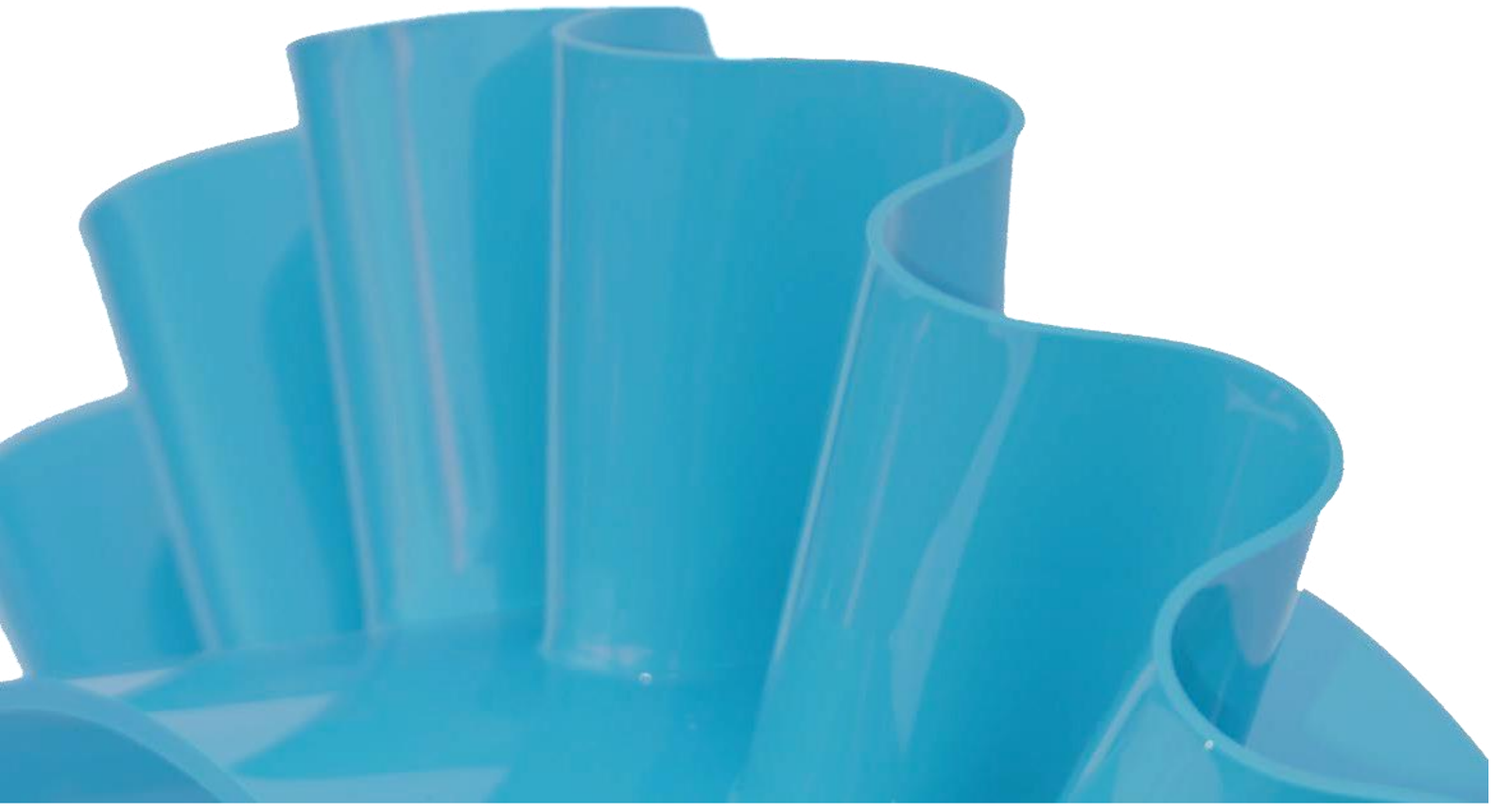
Metal Detectable (MD) Positive Drive Belts											
Product & Color			Shore Hardness	Temperature Range	CoF UHMW (bottom)	Thickness	Minimum Pulley Diameter		Maximum Pull Force		Certifications
						mm	mm	Inch	kg/cm	lbs/in	
SuperDrive™ Metal & Detectable Belt											
FMB-SD-MD	Blue 09		53D	-20°C to 60°C -5°F to 140°F	0.28	3	100	4	6	33.6	FDA/EU
FMB-SD-ITO50-MD	Blue 09		53D	-20°C to 60°C -5°F to 140°F	0.28	3	100	4	6	33.6	FDA/EU
DualDrive™ Metal Detectable Belt											
FMB-DD-MD	Blue 09		53D	-20°C to 60°C -5°F to 140°F	0.28	3	100	4	6	33.6	FDA/EU

Metal Detectable (MD) Food Conveying Belts											
Product & Color			Shore Hardness	Temperature Range	CoF UHMW (bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension 1%		Certifications
						mm	mm	Inch	kg/cm	lbs/in	
Flat, Homogeneous Metal Detectable Belts											
FMB-MD	Blue 09		95A	-20°C to 60°C -5°F to 140°F	0.28	3	75	3	1.80	10.1	FDA/EU
Flat, Homogeneous Embossed Bottom Metal Detectable Belts											
FEMB-MD	Blue 09		95A	-20°C to 60°C -5°F to 140°F	0.20	2	50	2	0.80	4.5	FDA/EU
						3	75	3	1.20	6.8	
Flat, Homogeneous Impression Top Metal Detectable Belts											
FEMB -ITO50-MD	Blue 09		95A	-20°C to 60°C -5°F to 140°F	0.20	2	50	2	0.60	3.36	FDA/EU
						3	75	3	1	5.6	
FEMB - CT-MD	Blue 09		95A	-20°C to 60°C -5°F to 140°F	0.20	3	95	3 3/16	1.2	6.75	

Guidelines and Suggested Materials for the Fabrication of Metal Detectable (MD) belts:

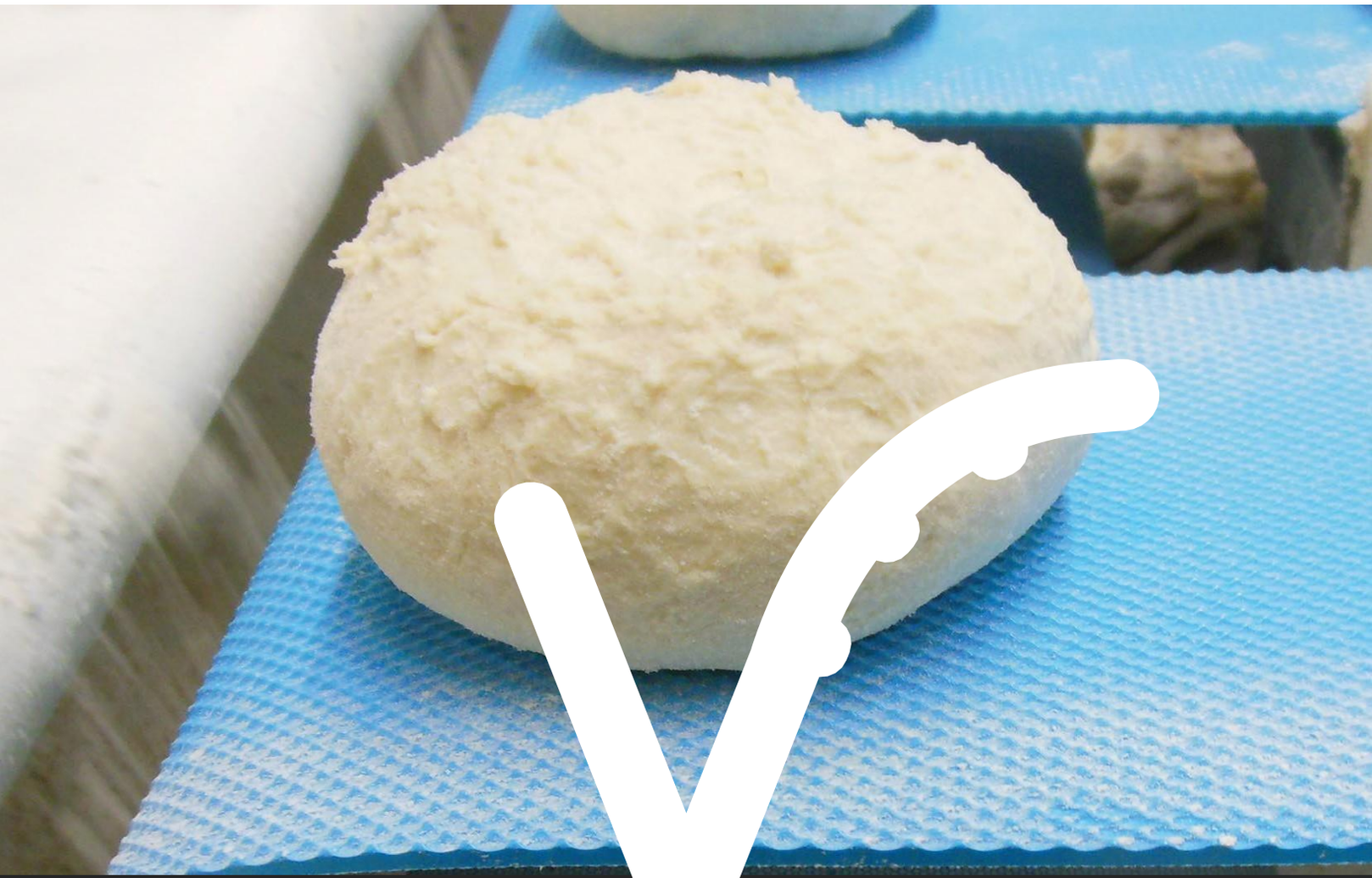
- The Metal Detectable material (MD) should be treated as a separate family of materials in terms of fabrications.
- Sidewalls: It is possible to weld Sidewalls from MD material (FMB-MD) with a thickness of 2mm only.
- Flights: It is recommended to use MD material for flights – FMB-MD.
- Guides: Use the VLB-MD guide for the Metal Detectable belts.
- Electrodes: Use EVMB-MD electrode.
- RoundFlex™ Lace: Item code LMD-R

Endless Closure of Belts: Volta recommends joining the Metal Detectable (MD) Positive Drive belts with a butt weld using an FBW Tool.



volta™
Belting Technology

The Next Step in Belting



Aramid Cord Reinforced Flat Belts

Conveying Solutions

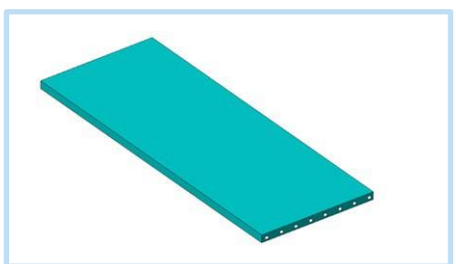
Motech

Aramid Cord Reinforced Flat Belts

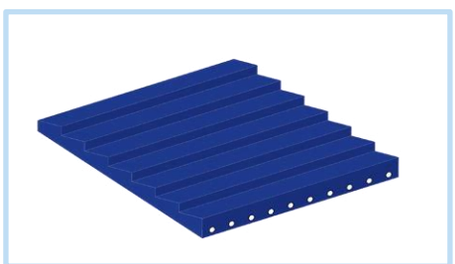
A food grade flat belt with special tensioning members fully sealed in a dense homogeneous material which has been tested for durability. Used,for example,where heavy or unevenly loaded products are carried. The Volta code for this Aramid cord reinforcement is ACR and the splicing method advised is a finger splice.

Aramid Cord Reinforced Flat Belt Range

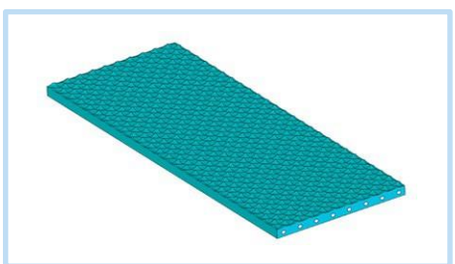
Embossed Bottom Belt



IST - Impression Saw Tooth



ITO50-Impression Top Oval



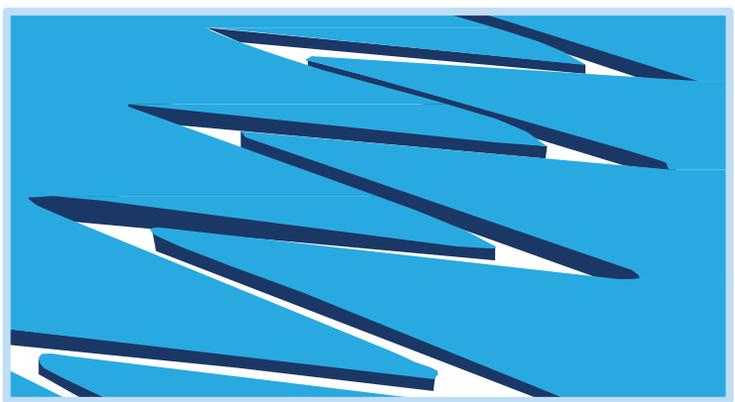
Product & Color			Shore Hardness	Temperature Range	Coefficient of Friction on S.Steel (Bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 0.2%		Certifications
						mm	mm	Inch	kg/cm	lbs/in	
Aramid Cord Reinforced (ACR) Embossed Bottom Belts											
FELB-ACR	Blue		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	20	0.79	4	22.40	FDA/EU
Aramid Cord Reinforced (ACR) Impression Top & Embossed Bottom Belts											
FELB-ACR -ITO50	Blue		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	20	0.79	4	22.40	FDA/EU
FELB-ACR-ITO50	Blue 02		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	20	0.79	4	22.40	FDA/EU
FELB-ACR-IST	Blue 02		80A	-40°C to 50°C -40°F to 120°F	0.45	4*	35	1.38	4.2	23.40	FDA/EU
Low Temperature (LT) Aramid Cord Reinforced (ACR) Impression Top & Embossed Bottom Belts											
FELB-ACR-ITO50-LT	Blue 15		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	18	0.70	4	22.40	FDA/EU
FEMB-LT ITO50-ACR	Blue 15		95A/46D	-35°C to 50°C -30°F to 120°F	0.25	2.5	40	1.57	4	22.40	FDA/EU

Note: * FELB-IST-ACR – Base belt thickness = 2mm // Total belt thickness including Saw tooth impression top = 4mm.

** Available belt width: 1524mm/60inch-standard or 2032mm/80inch. Please contact Volta Belting representative for additional informations. Pull force in table relates to a finger splice weld 20x50 mm. The calculation takes into account the weld splice which has strength of 28kg/cm. Note that various finger splice methods and different tools can result in differing belt strengths

Guidelines for Finger Splice Welding of the Volta Aramid Cord Reinforced (ACR) Belts

The Finger splice, with its increased contact area overlapping reinforcement cords, ensures the best weld in terms of belt strength.



Important Note: All information in the finger splice instructions is to be used as general guidelines only, based on experience from service centers using a variety of equipment. It has been noted that the exact temperature of a specific welding bar and the pressure required will vary from press to press or even on the same press when used in a workshop and then on site. Prior to first use,it is recommended to run a small set of trials to calibrate a given press. Prior to repeated use in a different environment and/or with a different thickness or texture, a test should be made to confirm the quality of weld is consistent and that every splice is hermetically closed and free from bubbles and cracks.

For Splicing 'L" Material Belts:

- After switching on the press, wait for both the top and bottom platens to heat to 180°C.
- When cutting the belt to the finger pattern, cut away any protruding Aramid fibers.
  Do not attempt to drill out the ends of these fibers into the belt surface.
- Place belt in position on heated area. Do not leave for any length of time without continuing the operation.
- Place an appropriate silicone pad across the top side of the belt in order to preserve the original belt surface (smooth or textured) as far as is possible.
- Apply 2 Bar of pressure for 4 minutes.
- Wait for the belt to cool down in the press (approx. 15 minutes) and then release.

For Splicing "M-LT" Material Belts

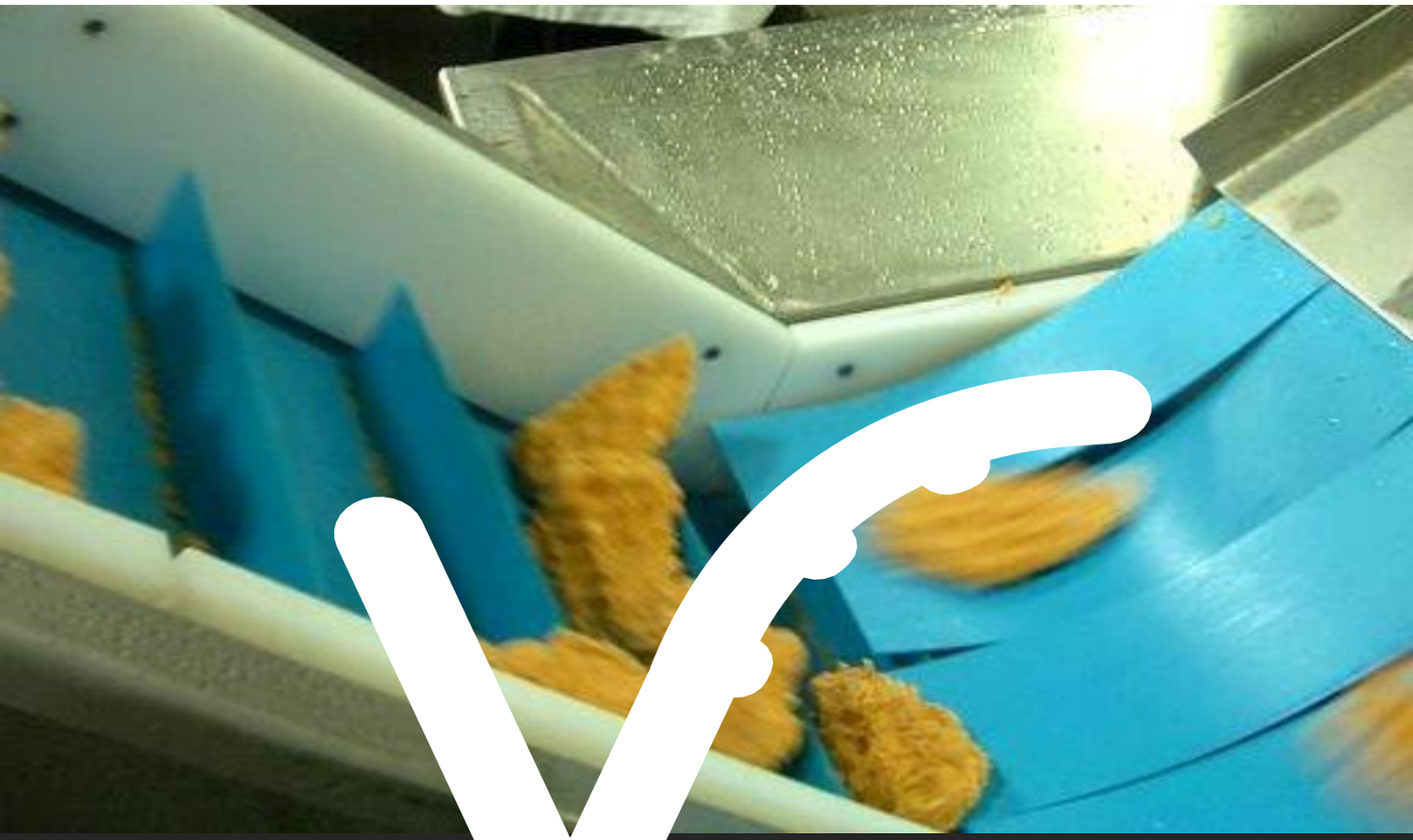
- After switching on the press, wait for both platens to heat to 180°C.
- When cutting the belt to the finger pattern, cut away any protruding Aramid fibers.
  Do not attempt to drill out the ends of these fibers into the belt surface.
- Place belt in position on heated area. Do not leave for any length of time without continuing the operation.
- Place an appropriate silicone pad across the top side of the belt in order to preserve the original belt surface (smooth or textured) as far as is possible.
- Apply 2.5 Bar of pressure for 6 or 7 minutes.
- Wait for the belt to cool down in the press (approx. 20 minutes) and then release.

Benefits:

- Reinforced belts with no fabric exposed
- No fraying, no delamination
- Eliminate contaminated reinforced fabric which is difficult to clean
- Fully extruded
- Food approved
- Compatible with HACCP principles
- Permits versatile applications such as soft base belts on small pulley diameters
- Can replace reinforced belts in wet applications where the sealed reinforcement hinders contamination and in bakery applications using flour
- High resistance to oils, fats and hydrolysis

volta™
Belting Technology

The Next Step in Belting



Food Grade Accessories

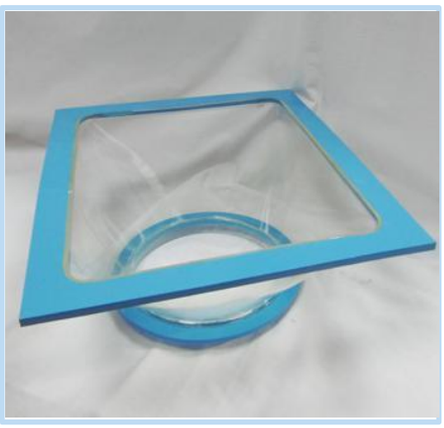
Conveying Solutions

Motech

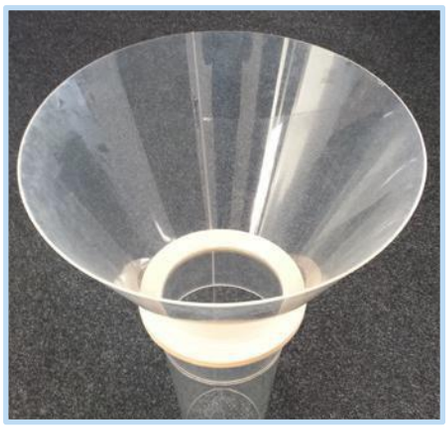
Volta food grade materials possess mechanical characteristics which make them ideally suited to static elements such as funnels or chutes. These elements are common in free fall of food products and chemicals and, when fabricated from conventional, inflexible materials such as polycarbonate or steel, can be hazard points or elements of concern in production for a number of reasons;

- Hard elements causing damage to product in free fall
- Elements from inflexible materials can jam when (irregular and bulky) product flow is at maximum
- Polycarbonate elements are often cracked when removed for cleaning and refastened with bolts by maintenance staff
- With solids, noise levels can be high
- Bolts and fasteners can be difficult to open
- Steel elements do not offer visibility into the product flow
- Low cleanability

Volta uses homogeneous food grade materials, including transparent and translucent conform to designs for funnels, chutes, pipes and similar elements to eliminate all the above problems. Flanges can be welded on to facilitate the fixing of the Volta funnels in the flow line.



Square to round flanged funnel



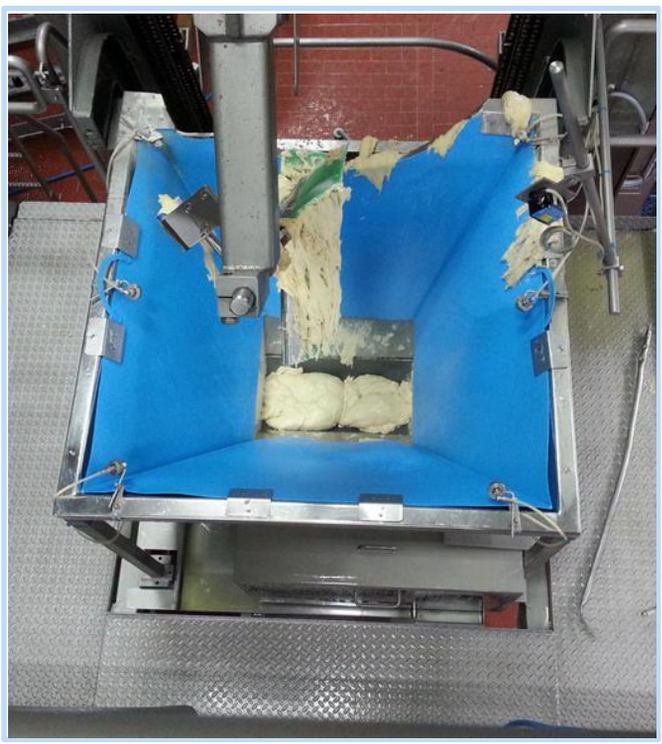
Double funnel

Double-flanged funnels

Base Materials used for funnels

Product & Color			Shore Hardness	Temperature Range	Thickness	Certifications
FMB	Blue		95A / 46D	-30° C to 70° C / -20° F to 158° F	2	FDA/USDA/EU
FMW	Beige				2.5	
FMWC	Clear				3	

- All elements are custom-made and can even be fitted and welded on site where measurements are difficult or inaccurate such as for hopper linings.



Hopper

- Hammocks are used to reduce noise and damage to sensitive products in freefall - examples range from vegetables to hard boiled sweets.

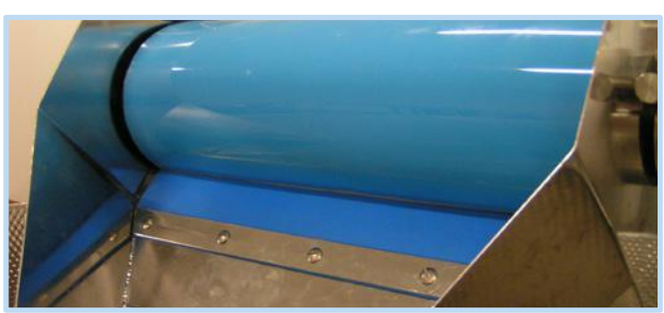
Hammock

- Simple flat pieces are available for use on tables, intake chutes and as skirting and scrapers. Skirting can be used as a simple means of containment and is an effective means of protecting conveyor features such as bearings and supports. Product is not lost and will not fall into the conveyor bed and support structure.

Chute Installed

Skirting

Sorting Table



Scraper

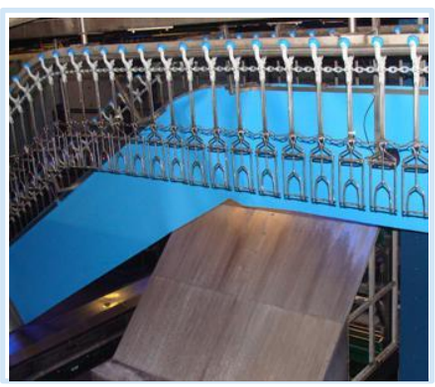
The use of correctly selected Volta material will not groove or damage the moving Volta conveyor belt.

Volta - Food Grade Accessories

Custom made funnels

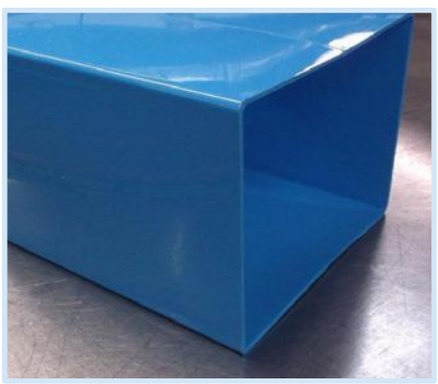
Pipes

Special funnel



Skirting

Chute lining



Squared-off tube

Funnels from Volta material

Double funnel

Silo funnel