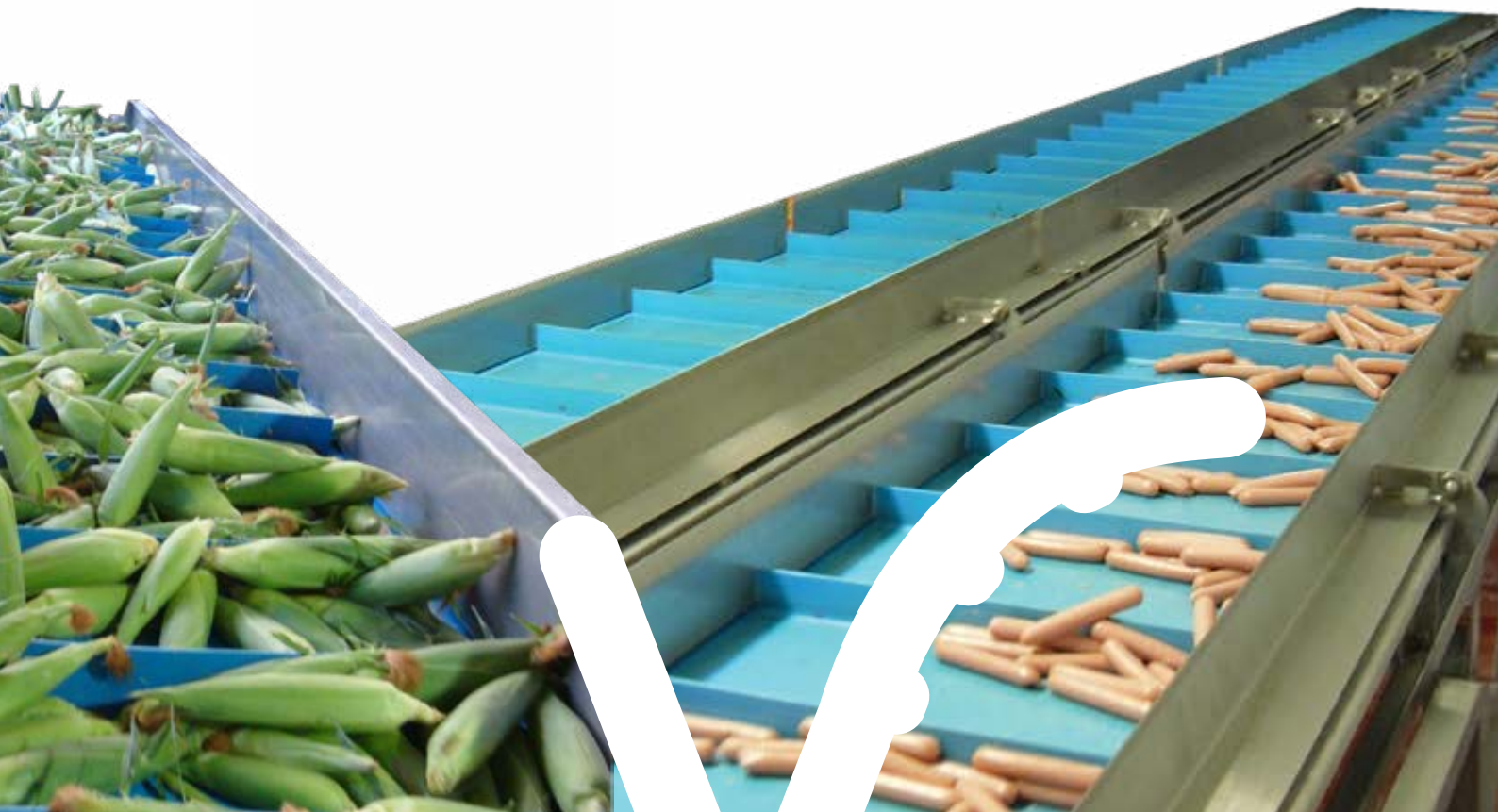




The Next Step in Belting



Flat Belts  
Food Industry

Conveying Solutions

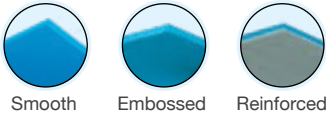
# Flat Belts for the Food Industry

- 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.

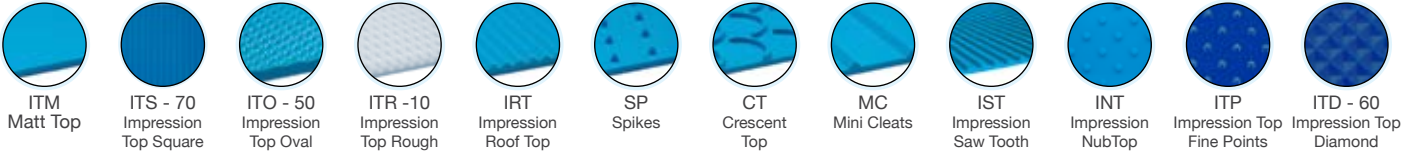
Homogeneous Belts										
Product & Color		Shore Hardness	Temperature Range	Coefficient of Friction on S.Steel (Bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 1%		Certifications
					mm	mm	Inch	kg/cm	lbs/in	
FHB	Blue16	59D	-20° C to 75°C -5° F to 170°F	0.28	2	70	2 <sup>3</sup> / <sub>4</sub>	2	11.20	FDA/USDA /EU
					3	90	3 <sup>9</sup> / <sub>16</sub>	3	16.80	
					4	110	4 <sup>3</sup> / <sub>8</sub>	4	22.40	
					5	150	5 <sup>7</sup> / <sub>8</sub>	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 <sup>3</sup> / <sub>8</sub>	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 <sup>3</sup> / <sub>4</sub>	2	11.20	
					3	90	3 <sup>9</sup> / <sub>16</sub>	3	16.80	
					4	110	4 <sup>3</sup> / <sub>8</sub>	4	22.40	
					5	150	5 <sup>7</sup> / <sub>8</sub>	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 <sup>3</sup> / <sub>8</sub>	1.50	8.40	FDA/USDA /EU
					3	40	1 <sup>5</sup> / <sub>8</sub>	1.80	10.10	
					4	60	2 <sup>3</sup> / <sub>8</sub>	2.40	13.50	
					5	80	3 <sup>1</sup> / <sub>8</sub>	3	16.90	
					6	90	3 <sup>9</sup> / <sub>16</sub>	3.60	20.25	
FMW	Beige	95A/46D	-30° C to 70°C -20° F to 158°F	0.40	2.5	35	1 <sup>3</sup> / <sub>8</sub>	1.50	8.40	FDA/USDA /EU
					3	40	1 <sup>5</sup> / <sub>8</sub>	1.80	10.10	
					4	60	2 <sup>3</sup> / <sub>8</sub>	2.40	13.50	
					5	80	3 <sup>1</sup> / <sub>8</sub>	3	16.90	
					6	90	3 <sup>9</sup> / <sub>16</sub>	3.60	20.25	
FMWC	Clear	95A/46D	-30° C to 70°C -20° F to 158°F	0.40	2.5	35	1 <sup>3</sup> / <sub>8</sub>	1	8.40	FDA/USDA /EU
					3	40	1 <sup>5</sup> / <sub>8</sub>	1.2	6.70	
					4	60	2 <sup>3</sup> / <sub>8</sub>	1.6	9	
					5	80	3 <sup>1</sup> / <sub>8</sub>	2	11	
					6	90	3 <sup>9</sup> / <sub>16</sub>	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
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 <sup>5</sup> / <sub>8</sub>	1.20	6.70	FDA/ EU
					4	60	2 <sup>3</sup> / <sub>8</sub>	1.60	9	
					5	80	3 <sup>1</sup> / <sub>8</sub>	2	11.20	
					6	90	3 <sup>9</sup> / <sub>16</sub>	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



## Flat Belt Impression Top Surfaces



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	1 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		
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		
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		
					1.6	10	3/8	0.32	1.79		
					2	12	1/2	0.40	2.24		
FELB	Blue	80A	-40° C to 50° C -40° F to 120° F	0.45	2.5	15	19/32	0.50	2.80	FDA/EU	
					3	20	13/16	0.60	3.36		
					1.6	10	3/8	0.32	1.79		
FELB	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	
					1.6	10	3/8	0.32	1.79		
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	1/2	0.40	2.24		
					2.5	15	19/32	0.50	2.80		
					3	20	13/16	0.60	3.36		
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		
FRLB	Blue	80A	-40° C to 50° C -40° F to 120° F	0.20	4	70	2 3/4	7.5	42	FDA/ EU	
					1.6	8	5/16	4	22		
FRLW	White 16	80A	-40° C to 50° C -40° F to 120° F	0.20	2	10	3/8	5	28	FDA/ EU	
					1.6	8	5/16	4	22		
					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	

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:** \*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	10	3/8	0.24	1.40	FDA/EU		
							2	12	1/2	0.30	1.74			
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	FELB -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*	12	1/2	0.32	1.87	FDA/EU		
							2.5	15	9/16	0.40	2.32			
							3	18	11/16	0.50	2.80			
							5	35	1 3/8	0.90	5			
	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	30	1 3/16	0.60	3.36	FDA/USDA/ EU		
							2.5	35	1 3/8	0.74	4.20			
							3	40	1 5/8	0.94	5.26			
	FEMW-ITO50	Beige		95A/46D	-30°C to 70°C -20°F to 158°F	0.25	2.5	35	1 3/8	0.74	4.20	FDA/USDA/ EU		
FEMB -ITO50-MD**	Blue 09		95A	-20°C to 60°C -5°F to 140°F	0.25	2	50	2	0.60	3.36	FDA/EU			
						3	75	3	1	5.6				
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	20	1 3/16	0.40	2.24	FDA/USDA/ EU		
							2.5	24	1 5/16	0.50	2.80			
							3	28	1 1/8	0.60	3.36			
	FEMB-SP	Blue		95A/46D	-30°C to 70°C -20°F to 158°F	0.25	2	40	1 5/8	0.80	4.50	FDA/USDA/ EU		
							2.5	45	1 3/4	1	5.60			
	FEMW-SP	Blue		95A/46D	-30°C to 70°C -20°F to 158°F	0.25	2	40	1 5/8	0.80	4.50	FDA/USDA/ EU		
						2.5	45	1 3/4	1	5.60				
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  $\geq 5^{\circ}\text{C} / 41^{\circ}\text{F}$ . \*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	

### 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 5/8	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	FDA/USDA /EU	

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
	Thickness	4	6	4	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	-20° C to 40° C				-30° C to 70° C		-40° C to 50° 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.



### Aramid Cord Reinforced (ACR) Embossed Bottom Belts

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	Inch	kg/cm	lbs/in	
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
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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:** \*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

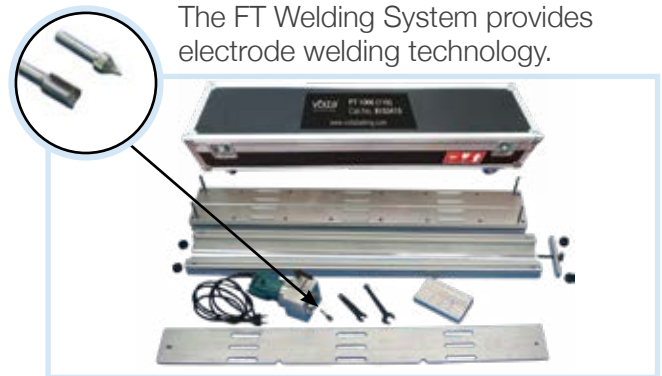
### FBW - Flat Butt Welding System

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



### FT - Electrode Welding System

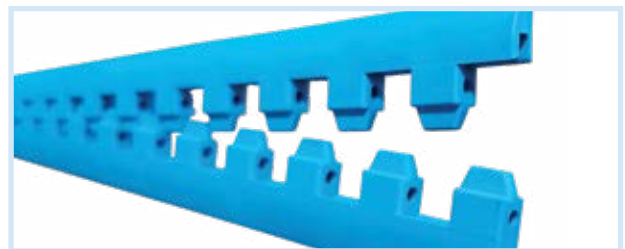
The FT Welding System provides electrode welding technology.



## 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



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