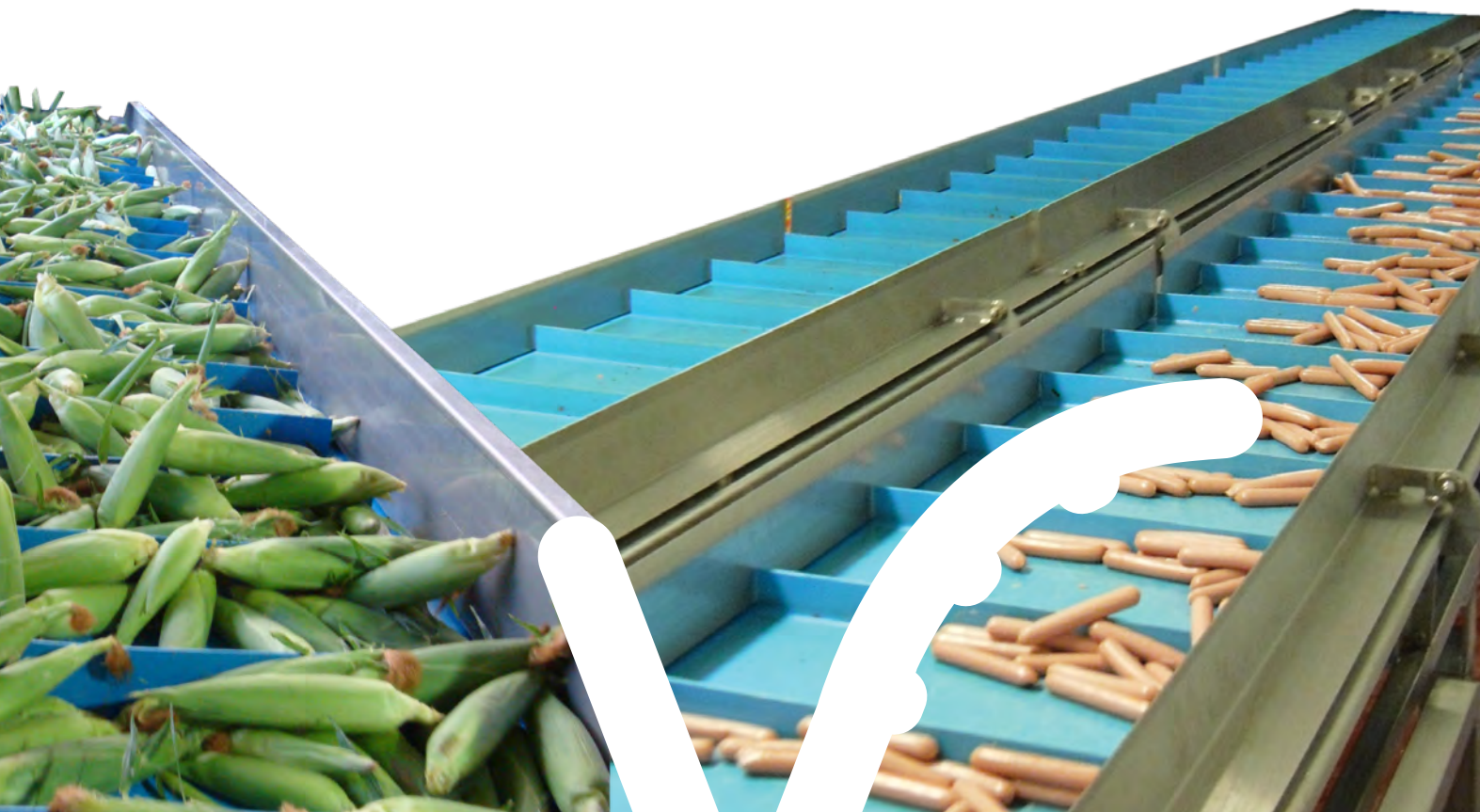




The Next Step in Belting



Flat Belts  
Food Industry

Conveying Solutions

# Flat Belts for the Food Industry

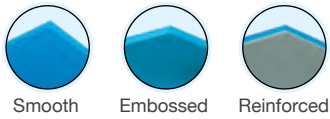
- Volta has been manufacturing belts from homogenous Thermoplastic Elastomer (TPE) materials for over 50 years.
- The base belts are cut and abrasion resistant and have no ply or hinged elements which harbor bacteria.
- Volta products are the optimal choice where superior hygiene, conveying and cost 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	1.5		50	2	1.50	8.40	FDA/USDA /EU		
					2		70	2 3/4	2	11.20			
					2.5**		80	3 1/8	2.50	14.00			
	3					90	3 9/16	3	16.80				
	4					110	4 3/8	4	22.40				
FHW	Off white				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	0.36	2		30	1 3/16	1.20	6.80	FDA/USDA /EU		
					2.5		35	1 3/8	1.50	8.40			
FMB	Blue 02**						3		40	1 5/8		1.80	10.10
					4		60	2 3/8	2.40	13.50			
FMW	Beige						5		80	3 1/8		3	16.90
					6		90	3 9/16	3.60	20.25			
FMWC	Clear						7		105	4 1/3		4.20	23.80
		8		120	4 1/2	4.80	27.20						
FTB	Blue10	72A	-40° C to 40° C -40° F to 104° F	1.25	2.5		16	5/8	0.475	2.66	FDA/ EU		
					3		19	3/4	0.57	3.2			
Low Temperature (LT) Homogeneous Belts													
FMB-LT	Blue15	95A/46D	-35° C to 65° C -31° F to 149° F	0.36	2		30	1 3/16	0.80	4.40	FDA/ EU		
					3		40	1 5/8	1.20	6.70			
					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 & X-Ray Detectable (MD) Homogeneous Belts													
FMB-MD	Blue 09	95A	-20° C to 60° C -5° F to 140° F	0.50	2		50	2	1.20	6.8	FDA/ EU		
					3		75	3	1.80	10.1			
					4		100	4	2.40	13.5			
					6		150	6	3.60	20.25			
FLB-MD	Blue 09	80A	-25° C to 50° C -13° F to 120° F	1.4	2		20	3/4	1.9	10.6			

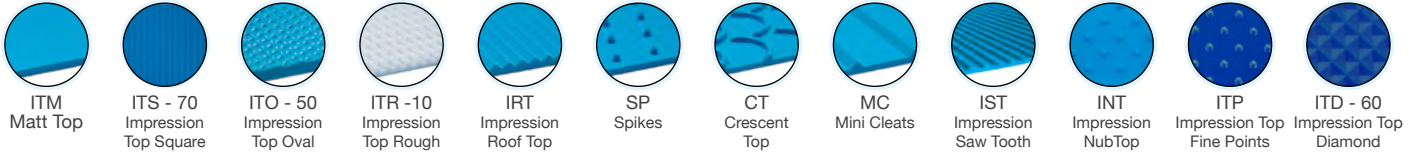
Standard belt width = 1524mm (60"). Some of the belts are also available in 2032mm (80") width. Please contact Volta Belting representative for additional information.

**Note:** \*\* FHB-Blue13 – available in 4mm only. 2.5mm available only in FHW-Off White. FMB-Blue02-available in 8mm only  
 \*\*\* FLB-2-MD-Blue09 – Coefficient of Friction refers to the Matt surface(side) of the belt. The COF of the Shiny side on Stainless Steel = 2.2.

## 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 3/16	0.60	3.60	FDA/USDA /EU	
FEMB***	Blue 02				2	30	1 3/16	0.80	4.50		
FEMW	Beige				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	5***	80	3 1/8	2.10	11.70	FDA/EU	
FELB	Blue	80A	-40° C to 50° C -40° F to 120° F	0.45	2	50	2	0.80	4.5	FDA/EU	
					3	75	3	1.20	6.8		
FELB***	Blue 02				1.6	10	3/8	0.32	1.79	FDA/EU	
FELW	White 16				2	12	1/2	0.40	2.24		
		2.5***	15	9/16	0.50	2.80					
FETB	Blue 10	72A	40° C to 40° C -40° F to 104° F	1	3	20	1 3/16	0.60	3.36	FDA/ EU	
					1.6	10	3/8	0.29	1.6		
					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	
FRMW	Beige				3	35	1 3/8	7	39		
					2	25	1	6	33.50		
					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		
					1.6	8	5/16	4	22		
					2	10	3/8	5	28		
FRLW	White 16	72A	-40° C to 40° C -40° F to 104° F	0.20	1.6	8	5/16	4	22	FDA/ EU	
					2	10	3/8	5	28		
					2.5	15	9/16	6.20	35		
					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 & X-Ray Detectable belt.  
 \*\*\*2.5mm available in FEMB-Blue02 only, 5mm available in FEMW-Beige and FEMB-Blue only. FELB-Blue02 available in 1.6mm and 2mm only.

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			
						3	18	3/4	0.45	2.60			
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*	12	1/2	0.32	1.87	FDA/EU		
	FELB - ITO50	Blue 02				2.5	15	9/16	0.40	2.32			
	FELW - ITO50	White16				3	18	11/16	0.50	2.80			
	FEMW - ITO50	Beige				5*	35	1 3/8	0.90	5			
	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				0.25	2	30	1 3/16	0.60	3.36	FDA/USDA /EU	
	FEMW - ITO50	Beige					3	40	1 15/8	0.94	5.26		
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				
					5	125	5	1.8	10.1				
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/EU		
	FEMB - IRT	Blue	95A/46D	-30°C to 70°C -20°F to 158°	0.25	3.5	40	1 9/16	1	5.60	FDA/USDA /EU		
Spikes*	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/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		
FEMW - SP	Beige	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	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				3	60	2 3/8	1.20	6.75			
	FEMW - CT	Beige				2.5	50	2	1	5.60			
	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:** \* Spikes -Height of Spikes above base belt is 2.8mm. FELB-2-ITO50 ; FELW-5-ITO50- not standard. FELW-2-ITO50 not available.

\*\* FELB-IST - Base - 2mm; total belt height 4mm. FEMB-ITM-LT – Min. Pulley diameter for temperature ≥ 5°C/41°F.

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

FELB-ITO50-Blue02 available in 3mm only, 5mm available in FEMB-ITO50&FELB-ITO50 only.



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	
						3	36	1 7/16	4.30	25.20		
FRMW - ITO50	Beige		95A/46D	30° C to 70° C -20° F to 158°	0.20	2.5	32	1 1/4	4.10	24		
						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				0.20	2.5	15	9/16	3.20	18		
						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		
FRLB - ITS70	Blue 02				0.20	1.6	8	5/16	4	22		
						2	10	3/8	5	28		

### 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.



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 - B	White 16				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	
FRMB - CB	Blue				0.30	3	40	1 5/8	6.80	38		
FRMW - CEB - C	Beige				0.30	3	40	1 5/8	6.80	38		
FRMB-CEBB-HMC***	Blue				0.30	3	120	4 7/8	5	28		
FRMB-CEBB-MC	Blue				0.30	3	85	3 3/8	4.80	26.80		
FRLB-CEBB-B-ITO50	Blue		80A	-40°C to 50°C -40°F to 120°F	0.30	2.5	15	9/16	3.50	18	FDA/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	2/2.5/3/4	2/ 2.5/ 3*	2/ 2.5/ 3*
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

## 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
FELB-ACR-SP	Blue	80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	35	1.38	4	22.40	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

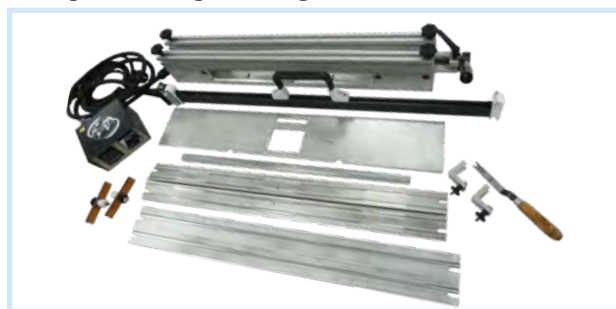
Standard belt width = 1524mm (60"). Some of the belts are also available in 2032mm (80") width. Please contact Volta Belting representative for additional information.

**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

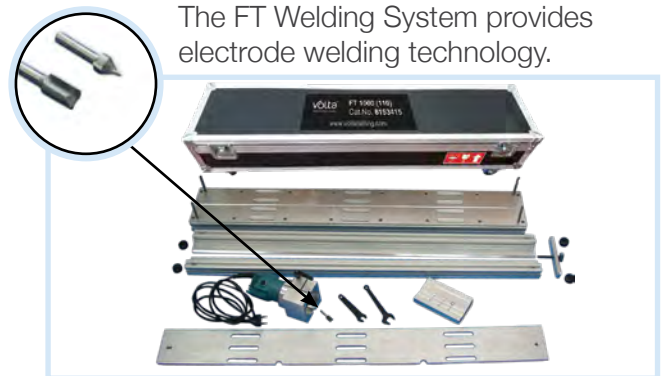
### FBW - Flat Butt Welding System

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 Hinge Lace Systems

Both Volta Universal Lace and Volta Roundflex™ Lace are compatible with Volta 'M' material belts from 2.5 to 5 mm 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



Universal Lace



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