esbelt

Conveyor belts

Conveyor and Process Belts

ISO 9001:2008

Profiles
Round & Vee belts
Flat belts
Buckets

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Industrial & General Purpose Belts

Belt type		Top cover					Botttom cover					Special characteristics
		Material	Hardness °ShA	Colour	Thickness mm	Surface	Material	Hardness °ShA	Colour	Thickness mm	Surface	
Aster	**A12 G2F**	PVC	55	Green 00	4,00	Pattern G2			Natural		Fabric	
	A12 G2K	PVC	65	Green 00	3,70	Pattern G2	PVC	90	Green 00	0,70	Pattern K	
	A13 QF	PVC	45	Green 00	1,70	Pattern Q			Natural		Fabric	
	A15 G2F	PVC	55	Black 02	4,00	Pattern G2	LFR		Grey 00	0,10	Impregn.	S
	A15 QF	PVC	55	Black 02	1,70	Pattern Q	LFR		Grey 00	0,10	Impregn.	S
	A15 W1F	PVC	65	Black 02	6,00	Pattern W1	LFR		Grey 00	0,10	Impregn.	S
	A19 DF	PVC	82	Black 01	0,90	Pattern D			Natural		Fabric	
	A20 AF	PVC	75	Green 00	1,20	Pattern A			Natural		Fabric	▼ □
	A20 G2F	PVC	55	Green 00	4,00	Pattern G2			Natural		Fabric	S
	A24 QF	PVC	45	Red 01	4,50	Pattern Q			Natural		Fabric	
	A33 QF	PVC	45	Green 00	3,40	Pattern Q			Natural		Fabric	
Breda	**B12 UF^{V}**	PU	93	Green 09	0,30	Smooth			Natural		WP	FDA EU ● ▼ ▽ □
	B20 UF^{V}	PU	93	Green 09	0,50	Smooth			Natural		Fabric	FDA EU ● ▼ ▽ □
	B07 CF	PVC	82	Green 00	0,50	Smooth			Natural		Fabric	▼ □
	B12 CF	PVC	82	Green 00	0,50	Smooth			Natural		Fabric	▼ □
	B12 CK	PVC	82	Green 00	0,50	Smooth	PVC	90	Green 00	0,70	Pattern K	▼ □
	B20 CF	PVC	82	Green 00	1,00	Smooth			Natural		Fabric	▼ □
	B20 CK	PVC	82	Green 00	1,00	Smooth	PVC	90	Green 00	0,70	Pattern K	▼ □
	B20 FF			Black 00		Fabric			Natural		Fabric	S ●
	B22 CF	PVC	82	Green 00	2,00	Smooth			Natural		Fabric	▼ □ ■
	B23 CF	PVC	45	Green 00	3,00	Smooth			Natural		Fabric	
	B25 CF	PVC	82	Green 00	1,00	Smooth			Natural		Fabric	▼ □
	B30 CF	PVC	82	Green 00	2,00	Smooth			Natural		Fabric	▼ □ ■
	B33 CF	PVC	45	Green 00	3,00	Smooth			Natural		Fabric	
Drago	**D20 CC**	PVC	78	Green 00	1,00	Smooth	PVC	78	Green 00	1,00	Smooth	▼ □ Ex
	D30 AR	PVC	78	Green 00	2,20	Pattern A	PVC		Green 00	0,10	Impregn.	▼ □ ■
	D30 CC	PVC	78	Green 00	2,00	Smooth	PVC	78	Green 00	1,00	Smooth	▼ □ ■ Ex
	D30 CR	PVC	78	Green 00	2,00	Smooth	PVC		Green 00	0,10	Impregn.	▼ □ ■
	D40 CC	PVC	78	Green 00	2,00	Smooth	PVC	78	Green 00	1,00	Smooth	▼ □ ■ Ex
	D81 CC	PVC	78	Green 00	1,00	Smooth	PVC	78	Green 00	1,00	Smooth	▼ □ Ex
	D90 C3R	PVC	75	Green 00	2,45	Pattern C3	hard PVC		Green 00	0,10	Impregn.	▼ □ ■
Febor	**F10 NF**	PVC	76	Black 04	0,50	Mat			Natural		Fabric	S
	F15 NF	PVC	82	Black 01	0,50	Mat	LFR		Grey 00	0,10	Impregn.	S
	F19 NF	PVC	82	Black 01	0,90	Mat	LFR		Grey 00	0,10	Impregn.	S
	F21 AF	PVC	82	Black 01	0,80	Pattern A	LFR		Grey 00	0,10	Impregn.	
	F21 NF	PVC	82	Black 01	0,60	Mat	LFR		Grey 00	0,10	Impregn.	
	F22 FF	CR		Black 00	0,10	Impregn.	LFR		Grey 00	0,10	Impregn.	S ●
	F12 CF	PVC	78	Green 00	0,50	Smooth			Natural		Fabric	
	F14 CF	PVC	78	Green 00	1,00	Smooth			Natural		Fabric	
	F20 CK	PVC	78	Green 00	0,70	Smooth	PVC	90	Green 00	0,70	Pattern K	
	F30 CF	PVC	78	Green 00	0,70	Smooth			Natural		Fabric	
	F30 RR	PVC		Transp.	0,10	Impregn.	PVC		Transp.	0,10	Impregn.	●
Hipro	**H12 Y1R**	HPVC	75	Green 23	0,60	Pattern Y1	CR		Black 00	0,10	Impregn.	▼ □
	H13 GR	HPVC	75	Green 23	5,50	Pattern G	CR		Black 00	0,10	Impregn.	▼ □
	H18 Y1R	HPVC	75	Green 23	0,80	Pattern Y1	CR		Black 00	0,10	Impregn.	▼ □
Keram	**K40 AF**	PU	93	Green 09	1,20	Pattern A			Natural		Fabric	FDA EU ▼ ▽ □ ■ SW
	K40 RF	PVC		Black 03	0,10	Impregn.			Natural		Fabric	▼ ■ SW
	K40 UF	PU	93	Green 09	1,00	Smooth			Natural		Fabric	FDA EU ● ▼ ▽ □ ■ SW

= Airports & Logistic Centers Conveyor Belts.

LFR = Low Friction Resin CR = Conductive Resin WP = Low-capillary fabric "Water Proof" ^{V} =PVC between plies

Constant (intermittent) temperature °C	Fabrics: Nº of plies	Fabrics: Weft	Belt thickness mm	Belt weight kg/m2	at 20ºC A ⌀ mm	at 20ºC B ⌀ mm	Breaking load N/mm	Working load at 1% elongation N/mm	Working load at 1,5% elongation N/mm	Max. roll width mm	Belt type	
- 5 (-15) + 80 (100)	2	Rigid	5,50	4,20	45	70	120	8	12	2000	**A12 G2F**	**Aster**
- 5 (-15) + 80 (100)	2	Rigid	6,30	5,25	70	90	120	10	15	2000	**A12 G2K**	
- 5 (-15) + 80 (100)	2	Rigid	3,20	3,50	45	70	120	9	13	2-3000	**A13 QF**	
- 10 (-15) + 80 (100)	2	Rigid	5,50	4,20	45	70	160	15	22	2000	**A15 G2F**	
- 10 (-15) + 80 (100)	2	Rigid	3,20	3,50	50	60	160	15	22	2-3000	**A15 QF**	
- 10 (-15) + 80 (100)	2	Rigid	8,75	4,80	80	100	150	10	16	1250	**A15 W1F**	
- 10 (-15) + 80 (100)	2	Flexible	2,20	2,50	35	55	90	12	18	1500	**A19 DF**	
- 5 (-15) + 80 (100)	2	Rigid	2,90	3,20	55	80	200	14	20	3000	**A20 AF**	
- 5 (-15) + 80 (100)	2	Rigid	5,80	4,60	55	90	160	16	22	2000	**A20 G2F**	
- 5 (-15) + 80 (100)	2	Rigid	6,40	6,90	50	80	160	14	22	2000	**A24 QF**	
- 5 (-15) + 80 (100)	3	Rigid	6,40	7,00	150	200	300	20	28	2000	**A33 QF**	
- 10 (-15) + 80 (105)	2	Rigid	1,60	1,90	40	60	120	10	16	2-3000	**B12 UF^{V}**	**Breda**
- 10 (-15) + 80 (105)	2	Rigid	2,20	2,60	60	80	200	18	25	2-3000	**B20 UF^{V}**	
- 5 (-15) + 80 (100)	1	Rigid	1,00	1,10	10	25	60	5	7	3000	**B07 CF**	
- 5 (-15) + 80 (100)	2	Rigid	2,10	2,50	35	55	120	10	15	3000	**B12 CF**	
- 5 (-15) + 80 (100)	2	Rigid	2,70	2,95	50	50	120	7	12	2000	**B12 CK**	
- 5 (-15) + 80 (100)	2	Rigid	2,90	3,50	55	75	200	15	22	3000	**B20 CF**	
- 5 (-15) + 80 (100)	2	Rigid	3,50	4,00	70	70	140	9	15	2000	**B20 CK**	
- 5 (-15) + 80 (100)	2	Rigid	2,40	2,70	60	60	190	15	20	3000	**B20 FF**	
- 5 (-15) + 80 (100)	2	Rigid	4,00	4,80	80	100	200	17	25	3000	**B22 CF**	
- 5 (-15) + 80 (100)	2	Rigid	4,80	5,80	80	120	200	15	22	3000	**B23 CF**	
- 5 (-15) + 80 (100)	3	Rigid	4,00	4,80	100	120	275	22	30	3000	**B25 CF**	
- 5 (-15) + 80 (100)	3	Rigid	4,90	5,80	120	150	300	22	30	3000	**B30 CF**	
- 5 (-15) + 80 (100)	3	Rigid	6,00	7,00	130	200	300	20	28	3000	**B33 CF**	
- 15 (-25) + 80 (100)	2	Flexible	4,10	5,10	140	140	200	20	28	2000	**D20 CC**	**Drago**
- 15 (-25) + 80 (100)	3	Flexible	5,60	6,50	180	200	300	25	40	2000	**D30 AR**	
- 15 (-25) + 80 (100)	3	Flexible	6,20	7,70	200	250	300	30	40	2000	**D30 CC**	
- 15 (-25) + 80 (100)	3	Flexible	5,40	6,50	180	200	300	25	40	2000	**D30 CR**	
- 15 (-25) + 80 (100)	4	Flexible	7,40	9,20	300	350	400	35	50	2000	**D40 CC**	
- 15 (-25) + 80 (100)	3	Flexible	7,80	9,60	400	400	800	65	95	2000	**D81 CC**	
- 5 (-15) + 80 (100)	3	Flexible	7,00	8,00	300	380	800	55	85	3000	**D90 C3R**	
- 5 (-15) + 80 (100)	2	Rigid	1,90	2,20	35	55	120	10	15	3000	**F10 NF**	**Febor**
- 10 (-15) + 80 (100)	2	Rigid	2,10	2,60	40	60	160	15	22	3000	**F15 NF**	
- 10 (-15) + 80 (100)	2	Rigid	2,50	3,00	40	60	180	17	25	3000	**F19 NF**	
- 10 (-15) + 80 (100)	2	Flexible	2,55	2,90	40	60	200	20	30	3000	**F21 AF**	
- 10 (-15) + 80 (100)	2	Flexible	2,40	2,90	40	60	200	20	30	3000	**F21 NF**	
- 10 (-15) + 80 (100)	2	Rigid	2,40	2,85	60	60	180	14	19	3000	**F22 FF**	
- 5 (-15) + 80 (100)	2	Rigid	2,00	2,40	35	55	120	10	15	3000	**F12 CF**	
- 5 (-15) + 80 (100)	2	Rigid	2,50	2,90	40	60	120	10	15	3000	**F14 CF**	
- 5 (-15) + 80 (100)	2	Flexible	2,90	3,50	75	75	200	20	28	2000	**F20 CK**	
- 5 (-15) + 80 (100)	3	Flexible	2,90	3,50	90	140	300	30	45	2000	**F30 CF**	
- 5 (-10) + 80 (100)	3	Flexible	3,40	3,80	150	150	300	25	40	3000	**F30 RR**	
- 5 (-15) + 80 (100)	2	Rigid	2,00	2,30	25	50	120	10	15	2000	**H12 Y1R**	**Hipro**
- 5 (-15) + 80 (100)	2	Rigid	6,50	6,20	60	90	200	14	20	2000	**H13 GR**	
- 5 (-15) + 80 (100)	3	Rigid	3,00	3,50	50	80	180	15	22	2000	**H18 Y1R**	
- 10 (-15) + 80 (105)	2	Rigid	4,20	4,20	140	330	400	20	30	2000	**K40 AF**	**Keram**
- 5 (-15) + 80 (100)	2	Rigid	4,00	4,20	80	100	400	22	32	3000	**K40 RF**	
- 10 (-15) + 80 (105)	2	Rigid	4,00	4,20	140	330	400	22	32	2000	**K40 UF**	

A15 W1F: pitch 108 mm

- Antistatic
- Antistatic top cover
- Antistatic bottom cover
- **S** Low noise fabric
- **FDA** Food quality
- **EU** Food quality Regulation EU 10/2011
- **EU*** Food quality Regulation 1935/2004
- Antibacterial
- Low friction coefficient
- Resistant to mineral oils and fats
- Resistant to vegetable oils and animal fats
- Resistant to vegetable oils and fats, and partially resistant to animal oils and fats
- Partially resistant to vegetable and animal oils and fats
- Abrasion resistant
- Cut resistant
- ATEX certified
- Pyrolisis test
- Flame retardant
- **SW** Solid Woven

Food conveyor belts

Belt type		Top cover					Botttom cover					Special characteristics
		Material	Hardness °ShA	Colour	Thickness mm	Surface	Material	Hardness °ShA	Colour	Thickness mm	Surface	
Aster	A10 G2F	PVC	60	White	4,00	Pattern G2			Natural		Fabric	FDA EU*
	A21 HF	PVC	70	White	3,00	Pattern H			Natural		WP	FDA EU
	A21 LF	PVC	70	White	3,50	Pattern L			Natural		WP	FDA EU
	A21 ZK	PVC	70	White	2,00	Pattern Z	PVC	90	White	0,70	Pattern K	FDA EU
	A26 XC	PVC	70	White	15,50	X Profile	PVC	70	White	1,00	Smooth	FDA EU*
	A26 X1C	PVC	70	White	15,50	X1 Profile	PVC	70	White	1,00	Smooth	FDA EU*
	A36 X1C	PVC	73	White	15,80	X1 Profile	PVC	73	White	0,70	Smooth	◔ FDA EU*
Clina (PU)	C06 UF	PU	86	Ocher 01	0,30	Smooth			Natural		WP	FDA EU ▽ □
	C07 UF	PU	86	White	0,30	Smooth			Natural		WP	FDA EU ▽ □
	C07 UFMT	PU	86	White	0,30	Mat			Natural		WP	FDA EU ● ▽ □
	C07 UU	PU		Green 16	0,10	Impregn.	PU		Green 16	0,10	Impregn.	FDA ● ▽
	C08 DF	PU	86	White	0,50	Pattern D	PU		Natural	0,10	Impregn.	◒ FDA EU ▽ □
	C08 UF	PU	86	White	0,30	Smooth	PU		Natural	0,10	Impregn.	◒ FDA EU ▽ □
	C08 UFMT	PU	86	White	0,30	Mat	PU		Natural	0,10	Impregn.	◒ FDA EU ● ▽ □
	C09 UF	PU	86	White	0,25	Smooth	PU		Natural	0,10	Impregn.	◒ FDA EU ▽ □
	C09 UFMT	PU	86	White	0,25	Mat	PU		Natural	0,10	Impregn.	◒ FDA EU ● ▽ □
	C10 FF			Natural		Cotton-Poly.			Natural		Cotton-Poly.	FDA EU ● ▽
	C10 UF	PU	86	White	0,30	Smooth			Natural		WP	FDA EU ▽ □
	C11 UF	PU	86	White	0,60	Smooth			Natural		WP	◒ FDA EU ▽ □
	C12 UF[v]	PU	86	White	0,30	Smooth			Natural		WP	FDA EU ▽ □
	C12 UFMT[v]	PU	93	White	0,30	Mat			Natural		WP	FDA EU ● ▽ □
	C20 UF	PU	93	White	1,00	Smooth	PU		Natural	0,10	Impregn.	FDA EU ● ▽ □ ■
Clina (PVC)	C07 CF	PVC	70	White	0,50	Smooth			Natural		WP	FDA EU
	C07 JF	Felt		White		Felt			Natural		Fabric	
	C11 FF			Natural		WP			Natural		WP	◒ FDA EU* ●
	C12 CF	PVC	70	White	0,50	Smooth			Natural		WP	FDA EU
	C12 DF	PVC	70	White	0,70	Pattern D			Natural		WP	FDA EU
	C13 FF			Natural		Fabric			Natural		Fabric	FDA EU ●
	C16 FF			Natural		Cotton-Poly			Natural		Cotton-Poly	FDA EU* ●
	C20 CF	PVC	70	White	0,80	Smooth			Natural		WP	FDA EU
	C20 CK	PVC	70	White	1,50	Smooth	PVC	90	White	0,70	Pattern K	FDA EU
	C21 CF	PVC	70	White	0,80	Smooth	PU		Natural	0,10	Impregn.	FDA EU
	C21 CK	PVC	70	White	0,50	Smooth	PVC	90	White	0,70	Pattern K	FDA EU
	C22 CF	PVC	70	White	2,00	Smooth	PU		Natural	0,10	Impregn.	FDA EU
	C30 CF	PVC	70	White	0,80	Smooth	PU		Natural	0,10	Impregn.	FDA EU
	C30 CK	PVC	70	White	1,50	Smooth	PVC	90	White	0,70	Pattern K	FDA EU
Espot	E20 CC	PVC	73	White	1,00	Smooth	PVC	73	White	1,00	Smooth	◔ FDA EU Ex
	E30 CC	PVC	73	White	2,00	Smooth	PVC	73	White	1,00	Smooth	◔ FDA EU Ex
	E40 CC	PVC	73	White	2,00	Smooth	PVC	73	White	1,00	Smooth	◔ FDA EU Ex
	E81 CC	PVC	73	White	1,00	Smooth	PVC	73	White	1,00	Smooth	◔ FDA EU
	E90 CC	PVC	73	White	2,00	Smooth	PVC	73	White	1,00	Smooth	◔ FDA EU
Febor	F11 CF	PVC	85	White	0,50	Smooth			Natural		Fabric	◒ FDA EU*
	F11 CF BI	PVC	85	Blue 06	0.50	Smooth			Natural		Fabric	◒ FDA EU*
	F19 CK	PVC	84	Blue 05	1,00	Smooth	PVC	90	Blue 05	0,70	Pattern K	FDA EU
	F21 CC EU •	PVC	75	White	2,00	Smooth	PVC	75	White	1,00	Smooth	◔ FDA EU □ Ex ⩔
	F31 CC EU •	PVC	75	White	2,00	Smooth	PVC	75	White	1,00	Smooth	◔ FDA EU □ Ex ⩔
	F32 CC EU •	PVC	75	White	2,75	Smooth	PVC	75	White	1,50	Smooth	◔ FDA EU □ Ex ⩔
	F41 CC EU •	PVC	75	White	2,00	Smooth	PVC	75	White	1,00	Smooth	◔ FDA EU □ Ex ⩔
	F91 CC EU •	PVC	75	White	3,00	Smooth	PVC	75	White	1,00	Smooth	◔ FDA EU □ Ex ⩔
Novak	N09 FF	PU		Blue 06	0,10	Impregn.	PU		Blue 06	0,10	Impregn.	◔ FDA ● ▽
	N09 UF	PU	85	Blue 06	0,25	Smooth	PU		Blue 06	0,10	Impregn.	◒ FDA EU ✚ ● ▽ □
	N09 UFMS	PU	85	Blue 06	0,25	Mat	PU		Blue 06	0,10	Impregn.	◒ FDA EU ✚ ● ▽ □
	N09 CF	PVC	70	Blue 06	0,50	Smooth			Natural		WP	FDA EU
	N12 G2F	PVC	65	Blue 06	4,00	Pattern G2			Natural		Fabric	◓ FDA
	N19 CF	PVC	70	Blue 06	0,80	Smooth			Natural		WP	FDA EU
	N19 CK	PVC	70	Blue 06	1,00	Smooth	PVC	90	Blue 06	0,70	Pattern K	FDA EU
	N20 CK	PVC	70	Blue 06	1,50	Smooth	PVC	90	Blue 06	0,70	Pattern K	FDA EU
	N30 CY	PVC	70	Blue 06	1,00	Smooth	PVC	70	Blue 06	0,50	Pattern Y	FDA EU*

• = Belts also available in **FDA quality only** [v] = PVC between plies WP = Low-capillary fabric "Water Proof"

Constant (intermittent) temperature °C	Fabrics: Nº of plies	Fabrics: Weft	Belt thickness mm	Belt weight kg/m2	at 20ºC A ⌀ mm	at 20ºC B ⌀ mm	Breaking load N/mm	Working load at 1% elongation N/mm	Working load at 1,5% elongation N/mm	Max. roll width mm	Belt type	
- 5 (-15) + 80 (100)	2	Rigid	5,50	4,20	45	70	120	8	12	2000	**A10 G2F**	**Aster**
- 15 (-25) + 80 (100)	2	Rigid	5,00	4,80	80	130	200	14	20	2000	**A21 HF**	
- 15 (-25) + 80 (100)	2	Rigid	5,50	4,80	100	160	200	14	20	2000	**A21 LF**	
- 15 (-25) + 80 (100)	2	Flexible	4,50	4,70	80	100	200	20	28	2000	**A21 ZK**	
- 15 (-25) + 80 (100)	2	Flexible	18,60	7,60	150	200	200	18	28	600	**A26 XC**	
- 15 (-25) + 80 (100)	2	Flexible	18,60	8,00	190	210	200	18	28	800	**A26 X1C**	
- 15 (-25) + 80 (100)	3	Flexible	19,70	9,30	230	280	300	28	40	800	**A36 X1C**	
- 10 (-15) + 90 (110)	1	Rigid	0,80	0,90	8	30	60	6	8	2-3000	**C06 UF**	**Clina (PU)**
- 10 (-15) + 90 (110)	1	Rigid	0,80	0,90	8	30	60	6	8	2-3000	**C07 UF**	
- 10 (-15) + 90 (110)	1	Rigid	0,80	0,90	8	30	60	6	8	2000	**C07 UFMT**	
- 15 (-25) + 90 (110)	1	Rigid	0,45	0,32	8	8	60	5	7	3000	**C07 UU**	
- 10 (-15) + 90 (110)	1	Rigid	1,20	1,10	10	30	50	5	7	2000	**C08 DF**	
- 10 (-15) + 90 (110)	1	Rigid	1,00	1,10	10	30	50	5	7	2000	**C08 UF**	
- 10 (-15) + 90 (110)	1	Rigid	1,00	1,10	10	30	50	5	7	2000	**C08 UFMT**	
- 10 (-15) + 90 (110)	2	Rigid	1,20	1,35	10	30	100	8	12	2000	**C09 UF**	
- 10 (-15) + 90 (110)	2	Rigid	1,20	1,35	10	30	100	8	12	2000	**C09 UFMT**	
- 15 (-25) + 90 (110)	2	Flexible	1,40	1,25	10	10	110	7	10	2200	**C10 FF**	
- 10 (-15) + 90 (110)	2	Rigid	1,40	1,60	20	50	120	10	18	2000	**C10 UF**	
- 10 (-15) + 90 (110)	2	Rigid	2,70	3,00	30	50	100	8	12	2000	**C11 UF**	
- 10 (-15) + 80 (105)	2	Rigid	1,60	1,90	20	50	120	10	16	2-3000	**C12 UF**[V]	
- 10 (-15) + 80 (105)	2	Rigid	1,50	1,70	20	50	120	10	16	2-3000	**C12 UFMT**[V]	
- 10 (-15) + 90 (110)	2	Rigid	2,80	3,20	80	100	200	18	25	2000	**C20 UF**	
-15 (-25) + 80 (100)	1	Rigid	1,00	1,10	10	25	60	5	7	3000	**C07 CF**	**Clina (PVC)**
- 5 (-15) + 80 (100)	1	Rigid	2,90	2,05	60	80	85	8	10	1850	**C07 JF**	
-15 (-25) + 80 (100)	2	Rigid	1,30	1,40	30	30	120	9	12	3000	**C11 FF**	
-15 (-25) + 80 (100)	2	Rigid	2,10	2,50	35	55	120	10	15	3000	**C12 CF**	
-15 (-25) + 80 (100)	2	Rigid	2,30	2,50	35	55	120	10	15	2000	**C12 DF**	
-5 (-15) + 80 (100)	2	Rigid	2,00	2,30	40	40	120	9	12	3000	**C13 FF**	
-5 (-15) + 80 (100)	2	Rigid	2,55	2,40	40	40	160	5	8	2100	**C16 FF**	
-15 (-25) + 80 (100)	2	Rigid	2,80	3,30	55	75	200	15	22	3000	**C20 CF**	
-15 (-25) + 80 (100)	2	Rigid	4,10	4,85	75	90	140	9	15	2000	**C20 CK**	
-15 (-25) + 80 (100)	2	Flexible	2,40	2,90	55	75	200	20	30	2000	**C21 CF**	
-15 (-25) + 80 (100)	2	Flexible	2,60	3,10	75	75	200	20	28	2000	**C21 CK**	
-15 (-25) + 80 (100)	2	Rigid	4,00	4,80	80	100	200	17	25	3000	**C22 CF**	
-15 (-25) + 80 (100)	3	Rigid	3,70	4,40	110	140	300	22	30	3000	**C30 CF**	
-15 (-25) + 80 (100)	3	Rigid	5,20	6,20	130	150	210	16	25	2000	**C30 CK**	
- 15 (-25) + 80 (100)	2	Flexible	4,10	5,00	140	140	200	20	28	2000	**E20 CC**	**Espot**
- 15 (-25) + 80 (100)	3	Flexible	6,20	7,70	200	250	300	30	40	2000	**E30 CC**	
- 15 (-25) + 80 (100)	4	Flexible	7,40	9,20	300	350	400	35	50	2000	**E40 CC**	
- 15 (-25) + 80 (100)	3	Flexible	7,80	9,60	400	400	800	65	95	2000	**E81 CC**	
- 15 (-25) + 80 (100)	3	Flexible	9,00	11,20	400	500	900	75	130	2000	**E90 CC**	
- 5 (-15) + 80 (100)	2	Rigid	2,00	2,40	35	55	120	10	15	3000	**F11 CF**	**Febor**
- 5 (-15) + 80 (100)	2	Rigid	2.00	2.40	35	55	120	10	15	3000	**F11 CF BI**	
-15 (-25) + 80 (100)	2	Flexible	3,10	3,60	75	75	200	20	28	2000	**F19 CK**	
-15 (-25) + 80 (100)	2	Flexible	5,00	6,10	140	190	200	20	28	2000	**F21 CC EU** •	
-15 (-25) + 80 (100)	3	Flexible	6,10	7,60	200	250	300	30	40	2000	**F31 CC EU** •	
-15 (-25) + 80 (100)	3	Flexible	7,40	9,40	300	350	300	30	40	2000	**F32 CC EU** •	
-15 (-25) + 80 (100)	4	Flexible	7,40	9,20	300	350	400	35	50	2000	**F41 CC EU** •	
-15 (-25) + 80 (100)	3	Flexible	9,60	11,90	400	500	900	75	130	2000	**F91 CC EU** •	
-10 (-15) + 90 (110)	2	Rigid	1,10	1,10	15	15	100	9	15	2000	**N09 FF**	**Novak**
-20 (-25) + 90 (110)	2	Rigid	1,20	1,35	10	30	100	8	12	2000	**N09 UF**	
-20 (-25) + 90 (110)	2	Rigid	1,20	1,35	10	30	100	8	12	2000	**N09 UFMS**	
-15 (-25) + 80 (100)	2	Rigid	2,10	2,50	35	55	120	10	15	3000	**N09 CF**	
-5 (-15) + 80 (100)	2	Rigid	5,50	4,20	45	70	120	9	13	2000	**N12 G2F**	
-15 (-25) + 80 (100)	2	Rigid	2,80	3,30	55	75	200	15	22	3000	**N19 CF**	
-15 (-25) + 80 (100)	2	Flexible	3,10	3,60	75	75	200	20	28	2000	**N19 CK**	
-15 (-25) + 80 (100)	2	Rigid	4,10	4,85	75	90	140	9	15	2000	**N20 CK**	
-15 (-25) + 80 (100)	3	Rigid	4,30	5,00	140	140	210	16	25	2000	**N30 CY**	

A26 X1C and **A36 X1C:** also available in 500 and 600 mm.

- Antistatic
- Antistatic top cover
- Antistatic bottom cover
- **S** Low noise fabric
- **FDA** Food quality
- **EU** Food quality Regulation EU 10/2011
- **EU*** Food quality Regulation 1935/2004
- Antibacterial
- Low friction coefficient
- Resistant to mineral oils and fats
- Resistant to vegetable oils and animal fats
- Resistant to vegetable oils and fats, and partially resistant to animal oils and fats
- Partially resistant to vegetable and animal oils and fats
- Abrasion resistant
- Cut resistant
- ATEX certified
- Pyrolisis test
- Flame retardant
- **SW** Solid Woven

Food conveyor belts

Belt type		Top cover					Botttom cover					Special characteristics
		Material	Hardness ºShA	Colour	Thickness mm	Surface	Material	Hardness ºShA	Colour	Thickness mm	Surface	
Poler	P08 EF	Polyester	93	Natural	0,20	Mat			Natural		Fabric	◒ FDA EU ● ▼ ▽ □ ⊛
	P18 EF	Polyester	93	Natural	0,35	Mat			Natural		Fabric	◒ FDA EU ● ▼ ▽ □ ⊛
	P18 T1F	Polyester	93	Natural	2,10	Pattern T1			Natural		Fabric	◒ FDA EU ▼ ▽ □ ⊛
Verna	V12 PF	Polyolef.	91	Transp.	0,50	Mat			Natural		Fabric	FDA EU ⊛
	V18 PF	Polyolef.	91	Transp.	0,50	Mat	Polyolef.		Natural	0,10	Impregn.	◒ FDA EU ⊛
	V18 PP	Polyolef.	91	Transp.	0,50	Smooth	Polyolef.	91	Transp.	0,20	Smooth	FDA EU ⊛
	V18 T1F	Polyolef.	91	Transp.	2,10	Pattern T1	Polyolef.		Natural	0,10	Impregn.	◒ FDA EU ⊛
	V18 TF	Polyolef.	91	Transp.	2,00	Pattern T	Polyolef.		Natural	0,10	Impregn.	◒ FDA EU ⊛
	V20 PF	Polyolef.	92	Transp.	0,30	Mat	Polyolef.		Natural	0,10	Impregn.	◒ FDA EU ● □ ⊛
	V30 PF	Polyolef.	92	Transp.	0,30	Mat	Polyolef.		Natural	0,10	Impregn.	◒ FDA EU ● □ ⊛
	V08 SF	Silicone	40	White	0,30	Smooth	PU		Natural	0,10	Impregn.	◒ FDA
	V12 SCF^{V}	Silicone	40	Transp.	0,30	Smooth			Natural		Fabric	FDA

Food Regulations

The general aim is to ensure safe food, protecting human health and the environment. Food regulations affect in varying degrees manufacturers of chemical substances, manufacturers of food contact materials such as belting, and food manufacturers. The regulations imply restrictions that foster the development of new products and procedures. In developed areas regulations phase out of the food contact materials market products, manufacturers and importers that do not comply. Obtaining compliance is often a complex and time consuming process; also some regulations, are regularly subjected to amendments, clarifications and extensions.

Consult **www.esbelt.com** for updated information.

FDA

An FDA product is a product approved by the USA **F**ood and **D**rug **A**dministration, whose broad aim is to ensure safe food. The FDA does not test products itself but rather reviews the results and product information of accepted laboratories. Approval processes of the FDA are dependant upon the risks that every product category poses to consumers. Title 21 of the Code of Federal Regulations lists the substances permitted in food contact materials, stipulated by the executive Departments and Agencies of the USA Federal Government.

HACCP

To ensure safe food, traditionally manufacturers have used spot checks of manufacturing conditions and random sampling of final products. The **H**azard **A**nalysis and **C**ritical **C**ontrol **P**oint system is a more efficient, preventive health and safety methodology that directly affects food producers. It aims at evaluating eventual health hazards and establishing adequate monitoring and corrective actions at explicitly identified critical points of food manufacturing, packaging and transport processes. The FDA and European regulatory agencies are developing specific procedures to establish HACCP as the standard food quality system throughout all areas of the food industry. As such, it has little to do with the technical characteristics of belt types: if appropriately cleaned and replaced, any food quality belt might be applied in HACCP processes. However consensus is developing that only antibacterial belts might be said to assist food manufacturers in the implementation of the HACCP quality system.

Regulation EU 10/2011* and Regulation 1935/2004

EU 10/2011 is the European quasi equivalent to the USA FDA, this normative establishes a list of products that are acceptable as food contact materials. It directly affects belt manufacturers. The product listing under FDA and under EU 10/2011 are not automatically the same. Under this Regulation, belts cannot release their chemical components into carried foodstuff above a global limit of 10 mg/dm^2 of surface area. It also establishes some maximum migration limits for specific substances used in the belt chemical formulae. The fact that migration is contingent upon time of contact and temperature adds ambiguity to the meaning of the Regulation as an intrinsic belt characteristic. **Esbelt**'s general criteria is to qualify a belt as EU 10/2011 if it complies after 2 hours under 40ºC. but targeted time and temperatures are adapted on a case by case basis for specialized belting considering type of food product to be carried and environmental conditions at plant manufacturing sites.

1935/2004 is a regulation covering all types of food contact materials stating that they cannot transfer their constituents into foodstuffs is quantities which could: a) endanger human health, b) bring about an unacceptable change in the composition of the foodstuffs, or c) deteriorate the organoleptic characteristics thereof. Since the meaning of endanger, unacceptable and deteriorate cannot be quantified this regulation, contrary to EU 10/2011, provides a general regulation framework.

*Replaces Directive 2002/72/EC

REACH

It involves the **R**egistration, **E**valuation and **A**uthorisation of **Ch**emical substances in a central public data base run by the European Chemicals Agency. Entered into force on 1 June 2007 but its provisions are phased-in over 11 years, so benefits will come gradually. However as of 2009 all substances available in the European Union must at least be pre-registered. It directly affects manufacturers and importers of chemical substances, not conveyor manufacturers. **Esbelt** requires and monitors that all of its raw materials suppliers comply, and consults the data base to look for hazard information.

ATEX

With preventing aims, the European ATEX Directive applies to components of machinery, such as belting, working in potentially explosive environments. Explosions may occur in processes with dust, milling, drying, conveyance and storage in silos, most particularly if bucket elevators are involved. Due to this, the **esbelt** ATEX certified belts are all of the Espot, Drago and Febor series. Within the different existing ATEX categories the **esbelt** belts are ATEX Category 2, meaning compliance with Directive 94/9/EC, which applies to non electrical components of machinery for use in potentially explosive atmospheres.

Constant (intermittent) temperature °C	Fabrics		Belt thickness mm	Belt weight kg/m2	at 20°C A ⌀mm	at 20°C B ⌀mm	Breaking load N/mm	Working load at 1% elongation N/mm	Working load at 1,5% elongation N/mm	Max. roll width mm	Belt type	
	Nº of plies	Weft										
-20 (-30) + 100 (120)	1	Rigid	0,90	1,00	10	30	60	5	7	2000	**P08 EF**	**Poler**
-20 (-30) + 100 (120)	2	Flexible	2,40	2,50	40	100	200	12	20	2000	**P18 EF**	
-20 (-30) + 100 (120)	2	Flexible	4,50	3,30	120	140	200	12	20	2000	**P18 T1F**	
- 15 (-25) + 35 (55)	2	Rigid	1,80	1,75	50	70	110	10	15	2000	**V12 PF**	**Verna**
- 15 (-25) + 35 (55)	2	Flexible	2,50	2,40	60	80	200	12	20	2-3000	**V18 PF**	
- 15 (-25) + 35 (55)	2	Flexible	2,70	2,80	80	80	200	14	20	2000	**V18 PP**	
- 15 (-25) + 35 (55)	2	Flexible	4,60	2,90	95	140	200	12	18	2000	**V18 T1F**	
- 15 (-25) + 35 (55)	2	Flexible	4,50	2,90	95	140	200	12	18	2000	**V18 TF**	
- 10 (-20) + 50 (70)	2	Rigid	2,50	2,40	65	80	200	13	22	2-3000	**V20 PF**	
- 10 (-20) + 50 (70)	3	Rigid	3,60	3,40	150	200	300	18	32	2-3000	**V30 PF**	
- 25 (-35) + 150 (170)	1	Rigid	1,00	1,00	8	20	50	5	7	2000	**V08 SF**	
- 15 (-25) + 80 (110)	2	Rigid	1,75	2,00	35	55	120	10	15	2-3000	**V12 SCF**[v]	

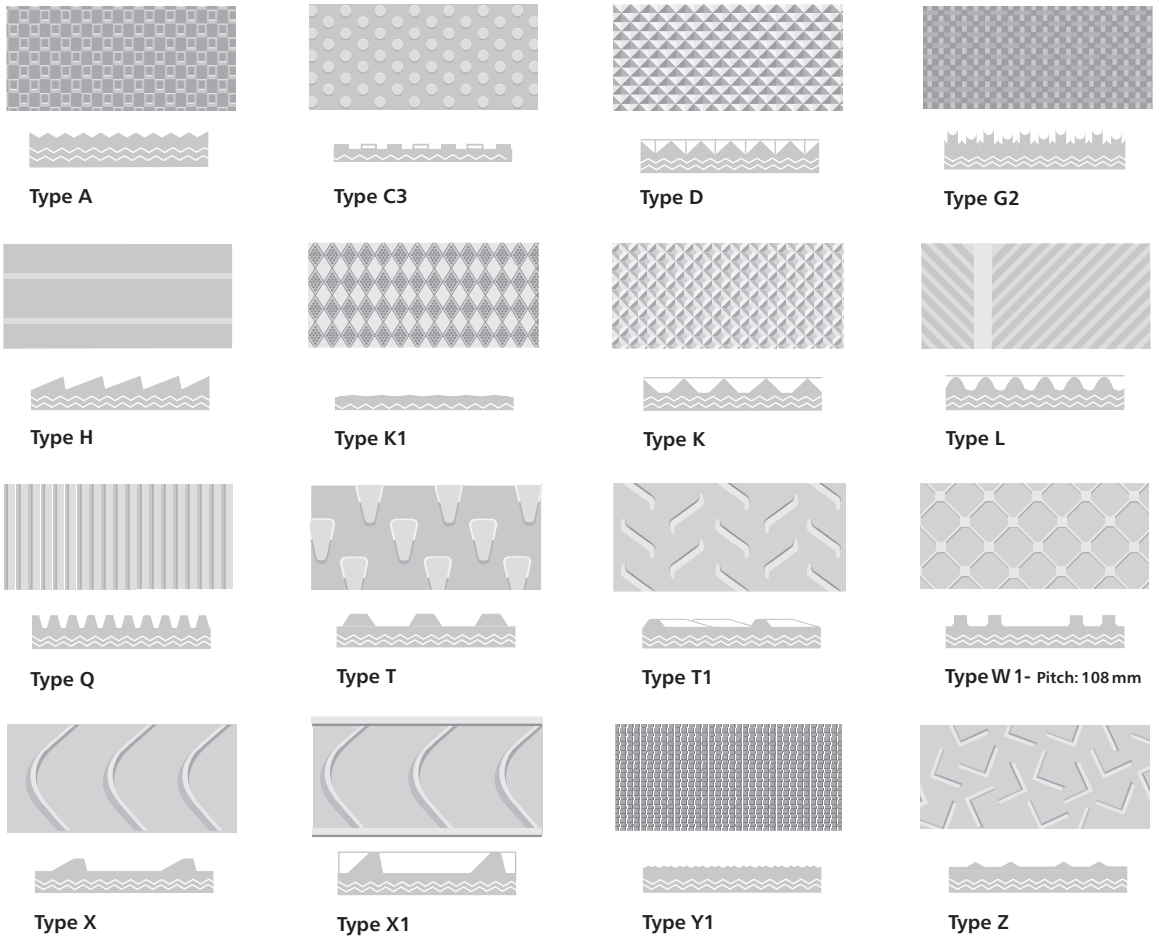
[v] =PVC between plies.

Skirts

Type	Material	Manufacturing width mm	Thickness mm	Hardness ºShA	Weight Kg/m2	Available colours
V15 PL	Polyolefin	1850	2,10	91	1,10	Transparent
NF 104	PVC	100	4,00	70	0,50*	White, Green 00, Blue 06
UNSS60	PU	62	2,30	85	0,177*	White, Green 09, Blue 06
UNRS85	PU	87	3,30	85	0,365*	White, Green 09, Blue 06
B07 CC	PVC	2000	1,30	82	1,60	Green 00

* Weight in Kg/m

More usual Patterns



- Antistatic
- Antistatic top cover
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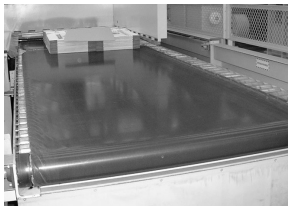
- Partially resistant to vegetable and animal oils and fats
- Abrasion resistant
- Cut resistant
- ATEX certified
- Pyrolisis test
- Flame retardant
- **SW** Solid Woven

esbelt series

Aster series
Food. White, FDA food-quality.
Industry. Green and black. Belts with an embossed cover for lifting or lowering packaged or bulk products.



Breda series
Industry. High resistance to abrasion, chemical products and mineral oils. Excellent performance under difficult working conditions.

Clina series
Food belts. Excelllent resistance to vegetable oils and animal fats. Non-toxic. PVC and PU.

Drago series
Industry. Resistant to cuts, abrasion and mineral oils. For roller, troughed conveyors and bucket elevators. Conveyance of clay, chemical fertilizers and grain materials.

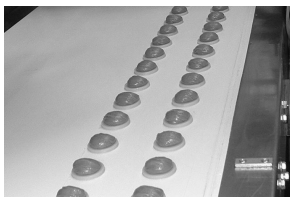
Espot series
Food. Excellent resistance to vegetable oils and fats. For roller troughed conveyors and bucket elevators. Conveyance of organic materials: food, seeds, compound fodders, waste.

Febor series
Industry.
Green – Packaged or grain products free of oils or fats.
Black – Flame retardant belts, airports, post office and logistics centres.
Food.
White and blue - FDA food-quality, flame-retardant, resistant to abrasion. Sugar, carrots and other vegetables.

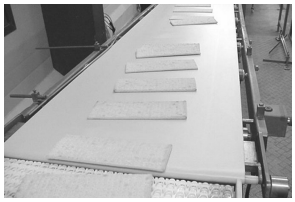
Hipro series
Industry. Excellent resistance to abrasion, better than some elastomers, highly antistatic, fusion splice. Conveyance and processing of cardboard, paper and other abrasive materials.

Keram series
Industry. Highly resistant to cuts and mineral oils. Automobile industry (cutting and stamping of metal).

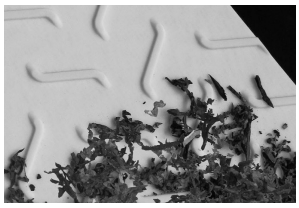
Novak series
Food. PVC and PU blue belts. Excelllent resistance to vegetable oils and animal fats.



X series
Food and knife-edge applications. White PU belts, with smooth, homogenous covers. Excellent longitudinal flexibility. Resistant to oils and fats.

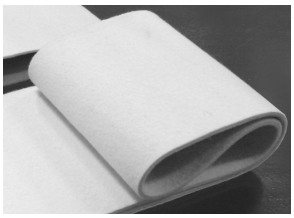
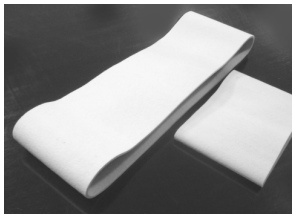


Poler series
Tobacco and Food belts.
Polyester belts are compliant with Pyrolisis test. They work extremely well at high temperatures.



Verna series
Tobacco and Food belts.
Polyolefin belts are compliant with Pyrolisis test. Silicone belts for conveying very sticky products.

... and also

Tubul Series - truly endless sleeves.
100% wool felt endless belts (no splice or seam). Baking and confectionery.

Type	Material	Weight g/m2	Thickness mm	Application
T2	100% wool	1.400	3	*Food industry:* croissant forming machines, automatic oven feeders, bread forming machines headstocks. *Textile industry:* larding of cotton.
T6		2.700	6	*Food industry:* french bread forming machines. *Textile industry:* polisher of filaments in FIPEL machine.

Cleats (flights)

for conveyor belting

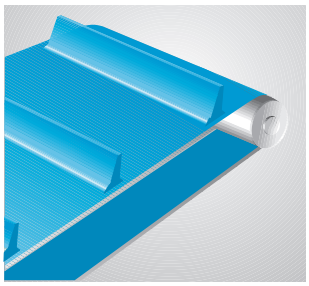
Inclined conveyors occasionally require belts with profiles or cleats (flights) on the carrying surface. These prevent slippage of the conveyed material and increases the belt capacity.

The type and height of the most suitable cleat (flight) is determined according to the characteristics of the conyeved material and the inclination of the conveyor. Optimum conveying capacity can be achieved up to angles of 70º by this means.

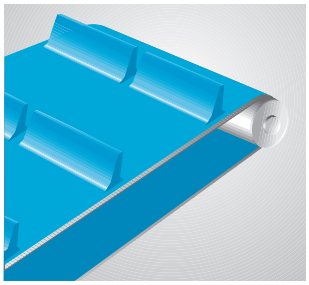
Notched PVC and PU trapezoidal tracking guides can be supplied; this increases belt flexibility and when fitted to the underside of the belt can reduce the minimum pulley diameter by 10%.

esbelt cleats (flights) are oil and fat resistant.

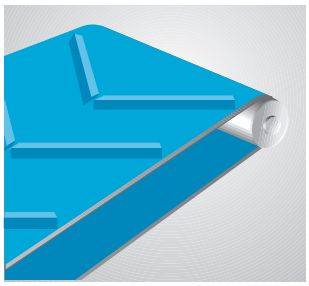
Examples of possible cleat (flight) arrangements are as follows:



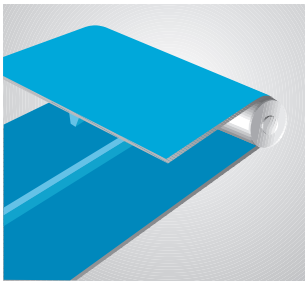
Single transverse cleat



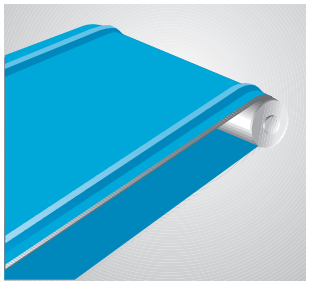
Double transverse cleat



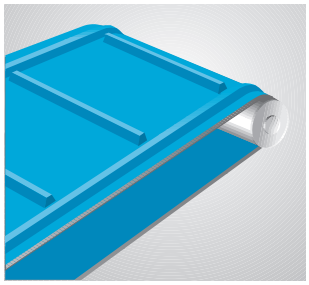
Herringbone "V" pattern



Inner trackin guide

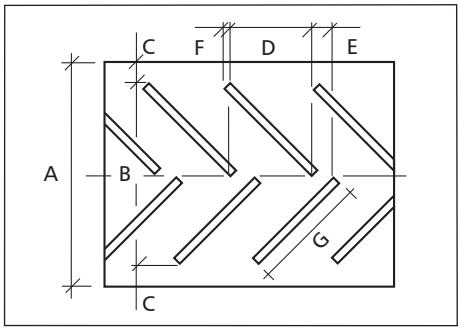


Retaining sidewalls



Single transverse cleat with retaining sidewalls

Arrangement of cleats in open "V" pattern (herringbone)



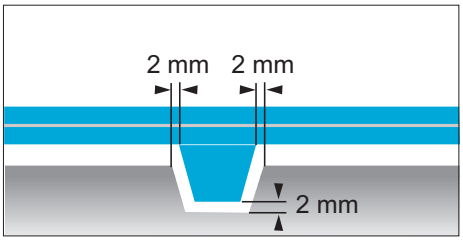
	Dimensions mm						
A	400	500	600	650	800	1000	1200
B	300	400	450	480	600	800	900
C	50	50	75	85	100	100	150
D	180	205	210	225	286	348	390
E	20	20	20	20	20	20	20
F	18	18	24	30	50	60	60
G	250	300	325	350	450	550	600

Recommendations for profile attachment

Profile attachment is best carried out on **2 or more ply belts**.

Minimum covers thickness for profile type are given below.

To obtain good results with a **tracking guide**, the grooves in the pulleys, rollers and slider beds must be larger than the tracking guide which is welded to the belt.



Material and type of profile		Minimum cover thickness
PVC	short fingers	0,3 mm
	height 20 and 30 mm	0,5 mm
	reinforced profiles	0,8 mm
	height 40, 50, 60 mm and types NE.012 and NE.C14	0,8 mm
	height 70, 80 mm and types NE.K16, NE.015 and fingers	1 mm
PU TPE	all types	0,3 mm
PO	all types	0,5 mm

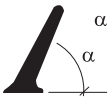
Cleats (flights)

Section	Type	Dimensions b mm	Dimensions h mm	Dimensions a mm	Material (1)	Weight g/m	Transverse minimum pitch mm	Transverse minimum ∅ mm (2)	Longitudinal minimum ∅ mm (2) bottom side	Longitudinal minimum ∅ mm (2) top side	Possible positioning (3)
	NE.008 NE.012	8 12	8 12		PVC	75 175	28 32	100	60 80	110 120	T - G - L - V
	PE.008 PE.012	8 12	8 12		PO	56 133	28 32	100			T - V
	NE.015	20	15		PVC	330			200	250	G - L
	NA.X04-62	6	4	4,0	PVC	23			25	30	G - L
	NE.Y05-62 NE.Z06-62 NE.A08-62 NE.B11-62 NE.C14-62 NE.K16-70	8 10 13 17 22 30	5 6 8 11 14 16	4,4 5,6 7,2 9,0 11,8 18,4	PVC	40 60 100 180 300 470	28 30 33 37 42 50	50 70 90 100 150 250	50 70 90 100 150 250	60 80 100 120 180 250	T - G - L - V
	UE.Z06 UE.A08 UE.B11	10 13 17	6 8 11	5,6 7,2 9,0	PU	59 98 170	30 33 37	70 90 100	70 90 100	80 100 120	T - G - L - V
	PE.Z06 PE.A08 PE.B11	10 13 17	6 8 11	5,6 7,2 9,0	PO	46 75 130	30 33 37	100 110 120			T - V
	EE.Z06 EE.A08 EE.B11	10 13 17	6 8 11	5,6 7,2 9,0	TPE	56 95 167	30 33 37	80 90 100		80 100 120	T - G - L - V
	DA.X04-62	6	3,5	4,25	PVC	18			15		G - L
	DE.Y05-62 DE.Z06-70 DE.A08-62 DE.B11-62 DE.C14-62 DE.K16-70	8 10 13 17 22 30	4,5 5,5 7,5 10,5 13,5 15,5	4,7 6,0 7,5 10,3 12,2 18,4	PVC	30 45 75 140 245 370			35 50 70 80 125 170		G - L
	DUE.Z06 DUE.A08 DUE.B11	10 13 17	5,5 7,5 10,5	6,0 7,5 9,0	PU	45 74 130			50 70 80		G - L
	NV.020-70 NV.030-70 NV.040-70 NV.050-70 NV.060-70	25 25 25 25 25	20 30 40 50 60		PVC	285 370 450 600 700	45	120 120 120 120 150			T
	NL.030-70 NL.040-70 NL.050-70 NL.060-70 NL.070-70 NL.080-70	25 25 25 25 40 40	30 40 50 60 70 80		PVC	430 550 700 780 1240 1400	50 50 50 50 130 130	120 120 120 150 170 170			T
	UV.020 UV.030 UV.050	10 10 10	20 30 50		PU	140 180 330	30	40 45 50			T
	PV.020 PV.030 PV.050	10 10 10	20 30 50		PO	95 135 235	30	100			T
	EV.020 EV.030 EV.050	10 10 10	20 30 50		TPE	130 170 300	30	80			T
	UL.030 UL.050	10 10	30 50		PU	215 320	40	45 50			T
	PL.030 PL.050	10 10	30 50		PO	155 225	40	100			T
	EL.030 EL.050	10 10	30 50		TPE	210 310	40	80			T
	NM.040-62 NM.060-62	45 55	40 60		Soft PVC	640 1120		120 150			T
	NQ.040-62 NQ.060-62 NQ.070-62	42 60 60	40 60 70		Soft PVC	665 1150 1300		120 150 170			T

(2) The minimum recommended diameters given are for normal working conditions, at 20ºC. Lower temperatures require greater diameters.

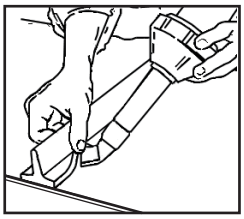
(3) Profile positioning:
T - Transversal, G - Inner tracking guide, L - Lateral retaining wall, V - V-shaped.

Unwelded profile angle:



$\alpha = 65^{o} \pm 3^{o}$

Once welded, the variation in the angle is minimal.



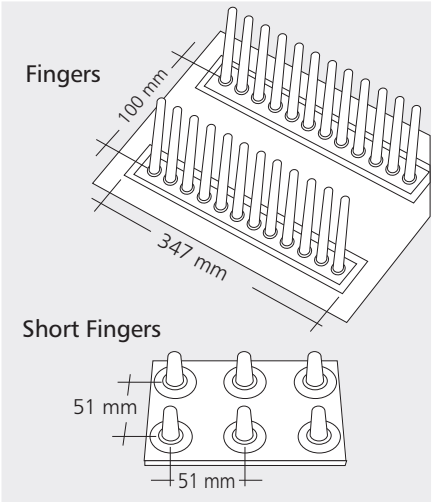
	(1) Material	Colour	Specials characteristics	Hardness	Temperature ºC
PVC	PVC	Green 00 - White - Blue 06	FDA, antistatic, oil resistant	70º ShA	-10 + 80
soft PVC	PVC	Green 00 - White - Blue 06	FDA, antistatic, oil resistant	62º ShA	-15 + 80
PU	Polyurethane	Green 09 - White - Blue 06	FDA, oil resistant	85º ShA	-10 + 100
PO	Polyolefin	Transparent	FDA, oil resistant	90º ShA	-10 + 50
TPE	Polyester	Natural	FDA, oil resistant	40º ShD	-20 + 105

Special profiles

Fingers and Short Fingers

As an alternative of cleats, **esbelt** provides **"Finger"** profiles**.** Specially indicated for conveying fruit on inclined sections (preventing sharp knocks that might damage the appereance) and frozen food products (the cylindrical structure prevents the frozen product from sticking to the belt).

Esbelt offers **"Short Fingers"** used mainly in harvesters of thin-skinned (apples, nectarines, peaches, pears, etc.) and the conveyance and selection of asparagus.

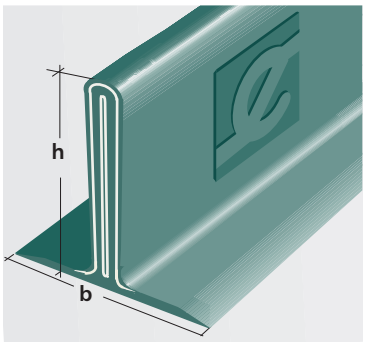


Profile	Height mm	Hardness ºShA	Colour	Minimum ø mm
Fingers	92	80	White and Green	100
Short Fingers	25	67		60

Reinforced profile

Esbelt offers reinforced PVC profiles in 4 different heights, specially designed for applications involving difficult conditions; in general all applications in which the profiles undergo impact on receiving or conveying material. Excellent resistance to ripping and cutting. Strong and long-lasting that increase transverse rigidity of the belt, producing greater stability on the conveyor.

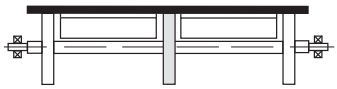
Profile	Dimensions		Transverse attachment		Length mm	Colour
	b mm	h mm	Minimum pitch mm	Minimum ø (2) mm		
NRR30	50	30	70	120	2000 mm strips	Blue 06, White and Green 00
NRR50		50				
NRR70		70				
NRR100		100				



Esbelt, also offers reinforced PVC profiles, inclined: **NIR70** and **NIR100**

Belt support on the return side

1. Belt with cleats (flights) in "V", section supported on a cylindrical roller.



3. Supported on three pulleys.

5. Belt with sidewalls supported by a cylindrical roller which is narrower than the belt.

2. Supported on two lateral pulleys.

4. Belt with internal tracking guide supported by a cylindrical roller and driven by a grooved driving pulley.

6. Belt with sidewalls and transverse cleat supported by a cylindrical roller.

Runers

PVC "Runer" - without base -

Profile welded directly onto belt.

FRRS type

- **With internal polyester reinforcement:** Resistant to the drum pressure at the inflections and on the return side.
- Recommended for particulary long and wide conveyors or for conveyors with inflections.

PVC	hF mm height	aF mm width	cF mm pitch	Minimum diameter mm	Thickness mm
FRRS35	35	48	55	80	5
FRRS40	40	48	55	100	5
FRRS45	45	48	55	100	5
FRRS50	50	48	55	120	5
FRRS55	55	48	55	120	5
FRRS60	60	48	55	140	5
FRRS65	65	48	55	140	5
FRRS70	70	48	55	160	5
FRRS75	75	48	55	160	5
FRRS80	80	48	55	180	5
FRRS85	85	48	55	180	5
FRRS90	90	48	55	200	5
FRRS95	95	48	55	220	5
FRRS100	100	48	55	220	5

FSSS type

- With internal polyester reinforcement.
- Recommended for straight or lighter conveyors.

PVC	hF mm height	aF mm width	cF mm pitch	Minimum diameter mm	Thickness mm
FSSS35	35	30	30	80	3,5
FSSS40	40	30	30	90	3,5
FSSS45	45	30	30	90	3,5
FSSS50	50	30	30	100	3,5
FSSS55	55	30	30	100	3,5
FSSS60	60	30	30	110	3,5
FSSS65	65	30	30	120	3,5

FNSS type

- **No internal reinforcement:** Developed for use in conveyors with extremely small pulley diameters.
- Recommended for small straight conveyors (no inflections).

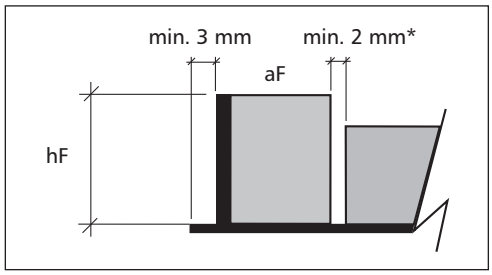
PVC	hF mm height	aF mm width	cF mm pitch	Minimum diameter mm	Thickness mm
FNSS35	35	35	30	40	4
FNSS45	45	35	30	50	4
FNSS55	55	35	30	60	4

PU "Runer" - without base -

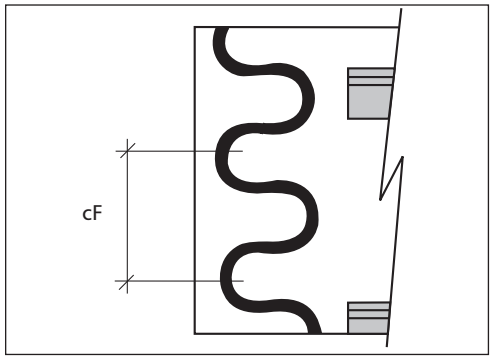
Profile welded directly onto the belt, without internal reinforcement.

PU	hF mm height	aF mm width	cF mm pitch	Minimum diameter mm	Thickness mm
UNSS35	35	28	30	50	2,3
UNSS40	40	28	30	60	2,3
UNSS45	45	28	30	65	2,3
UNSS50	50	28	30	75	2,3
UNSS55	55	28	30	80	2,3
UNSS60	60	28	30	90	2,3
UNSS65	65	28	30	95	2,3

Layout of transverse cleat and **"Runer"** without base.

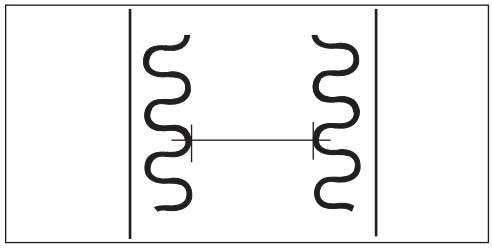


*When a cleat is type NL.070 or NL 080, the minimum distance of 2 mm will be increased to 5 mm.

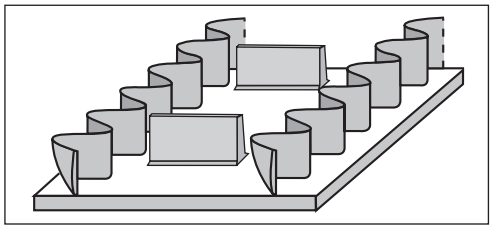


The distance between the transverse cleats should be a multiple of the - cF - pitch, if it is to coincide with the undulation of the **"Runer".**

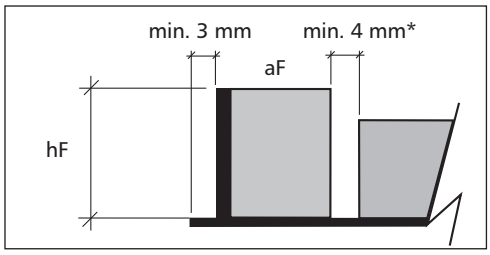
The minimum length for endless belts with the **Runer** profile is:
- 2,000 mm with PVC Runer
- 2,500 mm with PU Runer



The minimum distance between 2 Runer should be:
-100 mm with PVC Runers
-120 mm with PU Runers

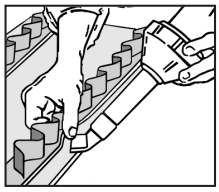


The length of the transverse cleats should be a multiple of 25 mm.



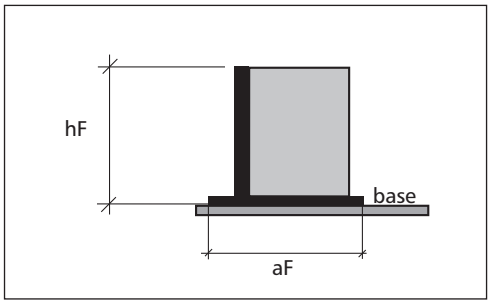
*When the cleat and **Runer** are PU the minimum distance between them will be 4 mm.

"Runer" -with base-



Profile with base for welding by hand with the Leister or using our LSM 1200R machine.

Outline of **"Runer"** with base.

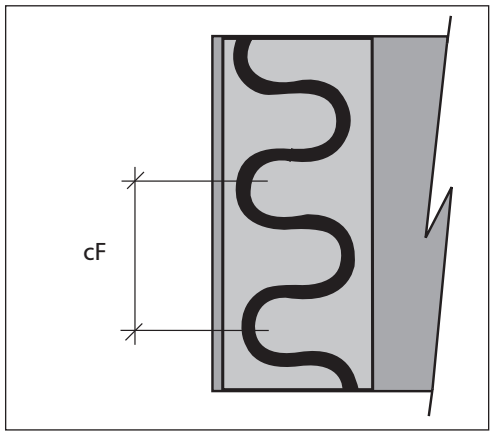


PVC

FSRC type

PVC	hF mm height	aF mm width	cF mm pitch	Minimum diameter mm	Thickness mm
FSRC35	35	55	55	80	3,5
FSRC55	55	55	55	120	3,5
FSRC85	85	55	55	180	3,5

Comments: Wave width = 45 mm
Thickness base = 3.5 mm



PU

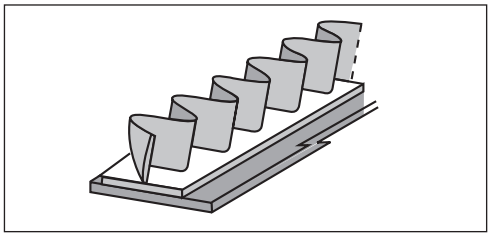
UNSM type

PU	hF mm height	aF mm width	cF mm pitch	Minimum diameter mm	Thickness mm
UNSM35	35	44	30	70	2,3
UNSM55	55	48	30	100	2,3

Comments: Wave width = 28 mm
Thickness base = 3.3 mm

All these profiles are available in two different qualities:

- **White:** Non-toxic, FDA, suitable for using with foodstuffs.
- **Green:** Suitable for all uses that do not requiere food quality belts, except green PU, which is FDA.



Recommendations for Runer attachment

In order to produce a good weld for the Runer, esbelt recommends certain minimum belt cover thicknesses, depending on the type and height of the Runer being attached.

The table gives the minimum cover thicknesses for the type of Runer.

Material and type of Runer	Maximum Runer height	Minimum cover thickness
PVC (FRR, FSS and FNS)	55 mm	≥0,50 mm
PVC (FRR, FSS)	from 60 mm to 75 mm	≥0,80 mm
PVC (FRR)	from 80 mm	≥1,50 mm
PU	all types	≥0,30 mm
With base PVC and PU (FSRC and UNSM)	all types	≥0,80 mm

General outline of nomenclature. Explanation of codes:

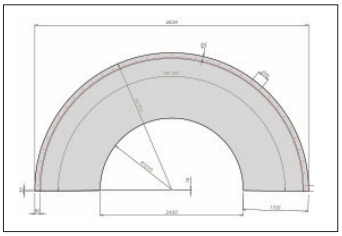
FSRC55B	1º Type of material	**F** PVC **U** PU
F**S**RC55B	2º Reinforcement	**R** Fabric with high transversal rigidity **S** Fabric with standard transversal rigidity **N** Not reinforced
FS**R**C55B	3º Pitch	**S** 30 mm **R** 55 mm
FSR**C**55B	4º Base	**S** Without base **C** With thin base (PVC=3.5 mm and PU=2.3 mm) **M** With thick base (PVC=5 mm and PU=3.3 mm)
FSRC**55**B	5º/6º Runer height (mm)	From 35 mm to 100 mm
FSRC55**B**	7º Colour	**B** White **V** Green

Some esbelt specialities

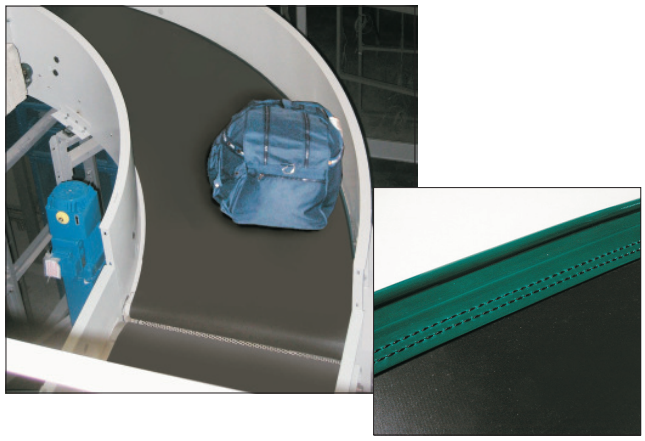
Power curves

Power curves fully fitted and ready to use.
Made with a single splice and stitched profile.

Matt or embossed finish on carrying side.



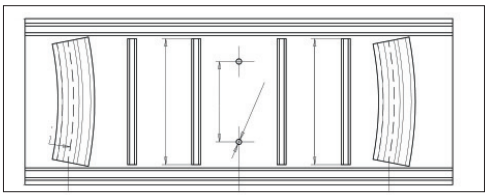
Esbelt power curve belts are highly flexible yet also strong and stable. They provide great lateral stability and easy tracking. The lateral aligning profile is an endless ring (avoiding risk of breaking or opening at the splice).



Grape harvesting machine belts

Our many year experience and number of metres manufactured make **esbelt** a leading company in this market.

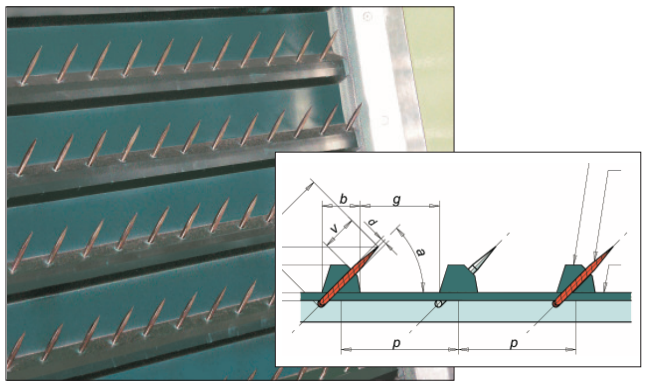
Well tested and widely recognised belts, they offer robustness and high transversal rigidity, working fully flat and centred. They last twice the average and can be repaired allowing a belt life up to two seasons. High frequency thermowelded profiles with excellent resistance to impact and tear.



Monoblock apron belts with pins

High performance, very reliable monoblock aprons for combing and carding machines, suitable for high loads.

Base belts with heat-sealed profiles, forming a single body and U-shaped pins attached from the bottom to ensure that they do not fall off, thus avoiding risks to the machine operation.



High resistance plastic mesh belts Washflow

A new concept in belts for the washing and conveyance of vegetables, fruit and frozen food, as well as for draining liquids and screening solid waste.
Alternative to modular belts, **Washflow** is a highly flexible, light-weight non-toxic PU mesh with internal reinforcement that meets FDA and EU standards and is highly resistant to abrasion and hydrolysis.

It is manufactured with various grid sizes to adapt to different granulometries and flows.

...other specialities

Esbelt offers many other belt specialities such as: **sealed edges** to protect/seal the edges of the belt against bacteria or fraying; splices with **hidden fasteners; continuous waves** on the belt surface to protect and convey delicate fruit, **cut longitudinal profiles**, very popular in the fruit and vegetable sector; **elevator** belts with **holes** for attaching buckets, and many more.

Buckets

Neucan Buckets

Polyethylene

(Hardness 62° ShD)

Polyethylene material. White.
Maximum service temperature 60ºC.
For use with moderately abrasive powders and granular products, flours, tobacco, fruit, animal feeds, powdered phosphates and urea; foodstuffs in general, chemicals, moist and sticky materials, etc.,

Type	A mm	B mm	C mm	D mm	E mm	ø mm holes	nº holes	capacity l	weight gr
100	106	49	91	89	45	7	2	0,22	55
120	126	63	105	105	55	7	2	0,37	105
140	145	80	111	120	63	7	2	0,52	118
160	169	98	123	132	68	7	2	0,79	152
180	184	104	137	138	75	7	2	1,10	201
200	202	117	147	140	70	9	2	1,16	250
230	237	75	157	152	82	10	3	1,58	290
250	258	78	159	164	82	11	3	2,04	360
300	305	100	178	180	98	11	3	2,98	485
315	320	110	190	195	103	11	3	3,30	625

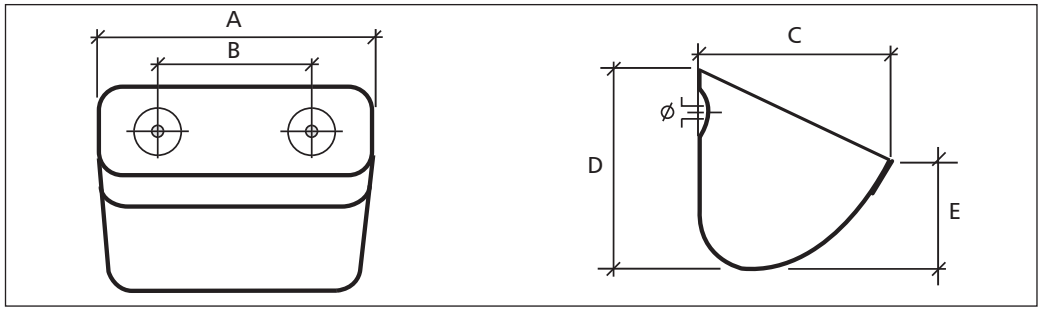
Vercan Buckets

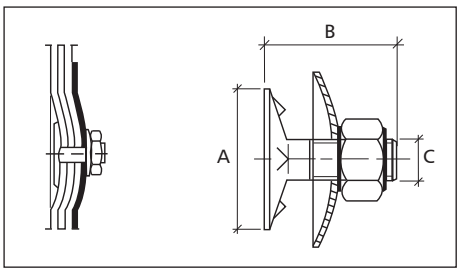
Polyamide

(Hardness 72° ShD)

Polyamide material. White and green. Antistatics.
Maximum service temperature 110ºC.
For use with small or medium size granular abrasive materials, rice, sugar, cereals, granulated feeds, cement, clay, active chemicals, detergents, fertilizers, salt, etc.

Type	A mm	B mm	C mm	D mm	E mm	ø mm holes	nº holes	capacity l	weight gr
100	107	50	90	90	47	7	2	0,24	74
120	129	64	106	106	58	7	2	0,41	140
140	145	81	113	120	64	7	2	0,55	155
160	170	98	125	132	69	7	2	0,83	194
180	190	105	137	140	78	7	2	1,17	255
200	205	119	147	142	74	9	2	1,24	317
230	237	75	157	152	85	10	3	1,64	375
250	262	79	161	165	87	11	3	2,17	475
300	305	100	178	180	98	11	3	3,30	610
315	328	111	190	195	108	11	3	3,45	785



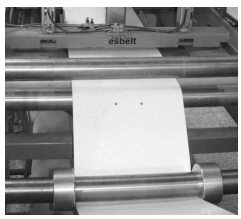


Type	A mm	B mm	C mm
M6 x 25	20	25	6
M8 x 30	28	30	8
M10 x 40	28	40	10

Bucket securing bolt with attachment bosses for belt, together with nut and concave washer.

Perforated Belts

Perforated belts may be supplied according to plans, both for holding elevator buckets and for other applications (suction, removal of liquids, etc.)

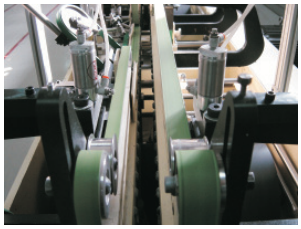
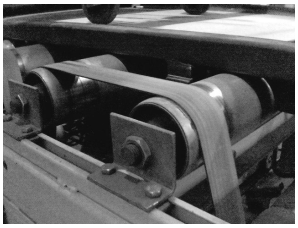


Toptrans. Transmission and process belts.

	Sector	Type	Colour		Material		Thickness mm	
			Top surface	Drive surface	Top surface	Drive surface	Top surface	Drive surface
Leather	Transmission DIRTY AND DUSTY APPLICATIONS	LF 10	Black 80	Grey 80	Nylon fabric	Leather	0,30	2,00
		LF 14	Black 80	Grey 80	Nylon fabric	Leather	0,30	2,00
		LF 20	Black 80	Grey 80	Nylon fabric	Leather	0,30	2,00
		LF 25	Black 80	Grey 80	Nylon fabric	Leather	0,30	2,00
		LF 30	Black 80	Grey 80	Nylon fabric	Leather	0,30	2,00
		LF 40	Black 80	Grey 80	Nylon fabric	Leather	0,30	2,00
		LF 54	Black 80	Grey 80	Nylon fabric	Leather	0,30	2,20
		LF 80	Black 80	Grey 80	Nylon fabric	Leather	0,30	2,20
		LL 10	Grey 80	Grey 80	Leather	Leather	2,00	2,00
		LL 14	Grey 80	Grey 80	Leather	Leather	2,00	2,00
		LL 20	Grey 80	Grey 80	Leather	Leather	2,00	2,00
		LL 25	Grey 80	Grey 80	Leather	Leather	2,00	2,00
		LL 30	Grey 80	Grey 80	Leather	Leather	2,00	2,00
		LL 40	Grey 80	Grey 80	Leather	Leather	2,00	2,00

	Sector	Type	Colour		Material		Thickness mm	
			Top surface	Drive surface	Top surface	Drive surface	Top surface	Drive surface
Elastomer and Fabric	Graphic Sector	EE 04	Green 83	Green 83	NBR	NBR	0,60	0,60
		EE 06	Green 83	Green 83	NBR	NBR	0,60	0,60
		FE 06	Green 83	Black 80	NBR	Nylon fabric	0,50	0,35
		FE 10	Green 83	Black 80	NBR	Nylon fabric	0,60	0,30
		FF 06	Green 81	Green 81	Nylon fabric	Nylon fabric	0,30	0,30
		FF 10N	Black 80	Black 80	Nylon fabric	Nylon fabric	0,30	0,30
		FF 20N	Black 80	Black 80	Nylon fabric	Nylon fabric	0,30	0,30
		FE 10/2	Green 83	Black 80	NBR	Nylon fabric	1,20	0,30
		FE 14/3	Green 83	Black 80	NBR	Nylon fabric	2,10	0,30
		FE 14/4	Green 83	Black 80	NBR	Nylon fabric	2,70	0,30
		EE 10/3	Green 83	Green 83	NBR	NBR	1,20	1,20
		EE 10/4	Green 83	Green 83	NBR	NBR	1,70	1,70
		EE 14/5	Green 83	Green 83	NBR	NBR	2,10	2,10
		EE 14/6	Green 83	Green 83	NBR	NBR	2,70	2,70
	Tangential	FC 04	Natural 80	Green 81	Mixed fabric	Nylon fabric	0,30	0,30
		FC 06	Natural 80	Green 81	Mixed fabric	Nylon fabric	0,30	0,30
		FC 04H	Ocher 80	Green 81	Mixed fabric	Rubberized fabric	0,30	0,35
		EE 10	Green 83	Green 83	XNBR	XNBR	0,70	0,70
		EE 14	Green 83	Green 83	XNBR	XNBR	0,70	0,70
		EE 20	Green 83	Green 83	XNBR	XNBR	0,70	0,70
		EE 25	Green 83	Green 83	XNBR	XNBR	0,70	0,70
		EE 30	Green 83	Green 83	XNBR	XNBR	0,70	0,70
		EE 33	Green 83	Green 83	XNBR	XNBR	0,70	0,70
	Transmission	EF 06	Black 80	Green 83	Nylon fabric	NBR	0,35	0,50
		EF 10	Black 80	Green 83	Nylon fabric	NBR	0,30	0,70
		EF 14	Black 80	Green 83	Nylon fabric	NBR	0,30	0,70
		EF 20	Black 80	Black 81	Nylon fabric	XNBR	0,30	0,70
		EF 25	Black 80	Black 81	Nylon fabric	XNBR	0,30	0,70
		EF 30	Black 80	Black 81	Nylon fabric	XNBR	0,30	0,70
		EF 40	Black 80	Black 81	Nylon fabric	XNBR	0,30	0,70

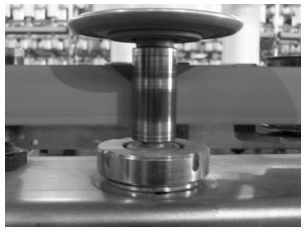
NR: Natural rubber. NBR: Nitrile rubber. XNBR: Carboxilated nitrile rubber.

Total weight Kg/m²	Thickness mm	Shaft load at 1% elongation N/mm	Tensile strength N/mm	Elongation at break %	Minimum Pulley Ø mm	Type	Applications
2,60	2,80	10	225	22	40	**LF 10**	Transmissions in two pulley drive systems in dirty and dusty environments.
2,80	3,00	14	315	22	60	**LF 14**	
3,10	3,30	20	450	22	90	**LF 20**	
3,05	3,55	25	560	22	120	**LF 25**	
3,75	3,80	30	625	22	200	**LF 30**	
4,20	4,30	40	900	22	280	**LF 40**	
5,50	5,25	54	1215	22	380	**LF 54**	
6,90	7,00	80	1800	22	560	**LF 80**	
4,10	4,50	10	225	22	40	**LL 10**	Multi pulley drive transmission in dirty and dusty environments.
4,40	4,80	14	315	22	60	**LL 14**	
4,60	5,00	20	450	22	90	**LL 20**	
4,25	5,25	25	560	22	120	**LL 25**	
5,00	5,50	30	675	22	200	**LL 30**	
5,50	6,00	40	900	22	280	**LL 40**	

Total weight Kg/m²	Thickness mm	Shaft load at 1% elongation N/mm	Tensile strength N/mm	Elongation at break %	Minimum Pulley Ø mm	Type	Applications
1,69	1,40	4	90	22	20	**EE 04**	Light transmissions, controller belts in cross cutters and feeders.
1,90	1,55	6	135	22	25	**EE 06**	
1,30	1,25	6	135	22	20	**FE 06**	General use in paper folding, transferring, offset and rotary printing.
1,30	1,25	6	135	22	20	**FE 10**	
0,80	0,95	6	135	22	20	**FF 06**	Feeder belts in offset printing and PE bag machines.
0,95	1,10	10	225	22	25	**FF 10N**	Process belts in applications where very high abrasion occurs in the carrying surface.
1,50	1,60	20	450	22	70	**FF 20N**	
2,20	2,00	10	225	22	35	**FE 10/2**	
3,55	3,15	14	315	22	40	**FE 14/3**	
4,30	3,70	14	315	22	40	**FE 14/4**	
3,20	2,90	10	225	22	30	**EE 10/3**	Box folding belts in folder-gluer machines.
4,70	3,90	10	225	22	30	**EE 10/4**	
5,90	4,95	14	315	22	50	**EE 14/5**	
7,40	6,10	14	315	22	50	**EE 14/6**	
0,65	0,80	4	90	22	15	**FC 04**	Spindle tapes in textile industry.
0,80	0,95	6	135	22	20	**FC 06**	
0,55	0,65	3	70	22	15	**FC 04H**	
2,25	1,90	10	225	22	35	**EE 10**	Tangential belts in textile industry. Transmission in multi pulley drives.
2,50	2,10	14	315	22	60	**EE 14**	
2,85	2,40	20	450	22	70	**EE 20**	
3,10	2,65	25	560	22	100	**EE 25**	
3,40	2,90	30	675	22	120	**EE 30**	
3,70	3,15	33	740	22	140	**EE 33**	
1,30	1,25	6	135	22	25	**EF 06**	Two pulley drive transmission.
1,60	1,50	10	225	22	30	**EF 10**	
1,85	1,70	14	315	22	50	**EF 14**	
2,20	2,00	20	450	22	70	**EF 20**	
2,50	2,25	25	560	22	90	**EF 25**	
2,65	2,50	30	675	22	130	**EF 30**	
3,30	3,00	40	900	22	280	**EF 40**	

Manufacturing width: 500 - 520 mm



PU Round & Vee belts

Main characteristics

- Easy and fast splicing. - Resistance to abrasion. - Resistance to oils and fats. - Resistance to a wide range of chemical products.
- High tensile strength. - Vibration absorption. - Low noise functioning - Easy to clean. - Easy to store due to special packaging.

Friction coefficient: Smooth finish: 0,4 to 0,8 (depending on hardness). - Rough finish: 0,3.

Maximum recommended speed: 15 m/s

Recommended operating temperatures: -20ºC to +50ºC (permanent) / -40ºC to +80ºC (momentaneous).

Assembly: Belt connection by thermoplastic fusion. To calculate the final length of the belt, pretension will have to be considered.
Pretension: - Non-reinforced belts: maximum 8% (depending on hardness). - Aramid reinforced belts: <1%.

Round belts

Section	Hardness 88º ShA Smooth green 14	Diameter (d) mm	Roll length m	Weight g/m	Min. pulley diameter mm
	RS88L03	3	100	9	25
	RS88L04	4	100	15	40
	RS88L05	5	100	24	50
	RS88L06	6	100	34	60
	RS88L07	7	100	50	60
	RS88L08	8	100	60	80
	RS88L10	10	50	94	100
	RS88L12	12	50	135	120
	RS88L15	15	50	212	150
	Rough				
	RS88R03	3	100	9	25
	RS88R04	4	100	15	40
	RS88R05	5	100	24	50
	RS88R06	6	100	34	60
	RS88R07	7	100	50	60
	RS88R08	8	100	60	80
	RS88R10	10	50	94	100
	RS88R12	12	50	135	120
	RS88R15	15	50	212	150

Round belts with Aramid reinforcement

Section	Hardness 92º ShA Smooth yellow 00	Diameter (d) mm	Roll length m	Weight g/m	Min. pulley diameter mm
	RK92L08	8	100	60	85
	RK92LW6	9,5	50	85	100
	RK92LW8	12,5	50	145	130
	RK92L15	15	50	212	155
	RK92L18	18	50	305	185
	Hardness 88º ShA Rough green 14				
	RK88R08	8	100	60	80
	RK88R10	10	50	94	100
	RK88R12	12	50	135	120
	RK88R15	15	50	212	150

Ridge top belts

Section	Hardness 88º ShA Green 14	Dimensions b mm	Dimensions h mm	Dimensions c mm	Roll length m	Weight g/m	Min. pulley diameter mm
	PS88L0A	13	8	7	50	130	130
	PS88L0B	17	11	9	50	240	180
	PS88L0C	22	15	10	50	410	230
	Hardness 92º ShA Yellow 00						
	PS92L0B	17	11	9	50	240	265
	PS92L0C	22	15	10	50	410	340

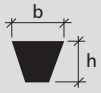
Ridge top belts with Aramid reinforcement

Section	Hardness 88º ShA Green 14	Dimensions b mm	Dimensions h mm	Dimensions c mm	Roll length m	Weight g/m	Min. pulley diameter mm
	PK88L0A	13	8	7	50	130	130
	PK88L0B	17	11	9	50	240	180
	PK88L0C	22	15	10	50	410	230

Pentagonal belts with Polyester reinforcement

Section	Hardness 88º ShA Green 14	Dimensions b mm	Dimensions h mm	Dimensions c mm	Roll length m	Weight g/m	Min. pulley diameter mm
	DF88L0B	17	10	10	50	300	210
	DF88L0C	21,5	14,6	10,4	50	440	265

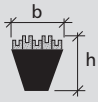
Trapezoidal Vee belts

Section	Hardness 88° ShA Green 14	Dimensions b mm	Dimensions h mm	Roll length m	Weight g/m	Min. pulley diameter mm
	TS88L0Z	10	6	50	64	70
	TS88L0A	13	8	50	102	90
	TS88L0B	17	11	50	172	115
	TS88L0C	22	14	50	286	160
	Hardness 92° ShA Yellow 00					
	TS92L0Z	10	6	50	64	80
	TS92L0A	13	8	50	102	100
	TS92L0B	17	11	50	172	130
	TS92L0C	22	14	50	286	180

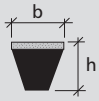
Trapezoidal Vee belts with Aramid reinforcement

Section	Hardness 88° ShA Green 14	Dimensions b mm	Dimensions h mm	Roll length m	Weight g/m	Min. pulley diameter mm
	TK88L0A	13	8	50	102	90
	TK88L0B	17	11	50	172	115
	TK88L0C	22	14	50	286	160

Trapezoidal Vee belts with PVC rough top cover

Section	Hardness 88° ShA Green 14	Dimensions b mm	Dimensions h mm	Roll length m	Weight g/m	Min. pulley diameter mm
	TS88G0Z	10	10	50	95	80
	TS88G0A	13	12	50	132	100
	TS88G0B	17	15	50	218	120
	TS88G0C	22	18	50	346	180

Trapezoidal Vee belts with smooth top cover

Section	Hardness 88° ShA Green 14	Dimensions b mm	Dimensions h mm	Roll length m	Weight g/m	Min. pulley diameter mm
	TS88C0Z	10	9	50	113	80
	TS88C0A	13	11	50	154	100
	TS88C0B	17	14	50	248	120
	TS88C0C	22	17	50	385	180

Polyester belts FDA quality

Section	Hardness 55° ShD Natural 00	Diameter (d) mm	Roll length m	Weight g/m	Min. pulley diameter mm
	RSE55LW6	9,5	100	85	190
	RSE55LW8	12,5	100	150	250

Round and trapezoidal extruded belts with and without polyester reinforcement, also available in **PU blue FDA and EU food quality** (Regulation 1935/2004), 80 °ShA.

Web Site

Esbelt provides a website that includes constantly updated information on our products (technical specifications, splicing instructions, applications in different sectors, and more), as well as a virtual office open 24 hours a day, to produce immediate and personalised automatic quotes, with help and interactive drawings.

- Product Search
- Product Technical Specifications
- Technical Information
- Auto Quotes
- Order Creation and Tracking
- Product Application
- Auto Digital Catalogue

Machinery for Handling Conveyor Belts.

Esbelt offers its clients all the necessary elements for handling and installing belts, as well as the accessories required to guarantee the best possible quality of finish and to increase productivity of distributors' workshops.

Easy-to-handle **portable slitter and automatic slitter.** Both designed for cutting belts lengthways. Maximum width 2,150 mm.

Ply separator for highly accurate separation of the ends of 2 and 3-ply belts.

Semi-automatic hydraulically operated **finger-cutting machine,** designed for cutting fingers in the ends of belts for splicing. Working width 1,370 mm.

Longitudinal and runer with base welder.
A pneumatically operated machine for hot-air welding on belts with a maximum width of 1,200 mm. We also have a welder just for longitudinal profiles.

Presses for vulcanising belts of different widths (600, 1,100 and 1,600 mm), providing a magnificent finish on splices.

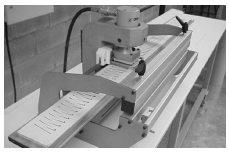
Edge-sealing Kit for conveyor belts.

Tool-kit for splicing round and vee belts and different handling tools for improving workshop tasks.

LCU 215

LCM 210EEN

LST 150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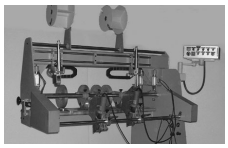
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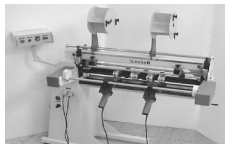
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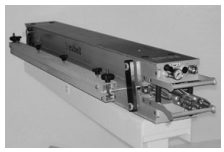
LPBE 600AC

LPBE 1100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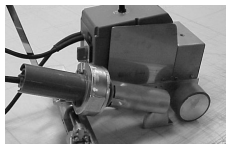
LPBE 1600A

LP 9000


LVM 000

LKSB 00

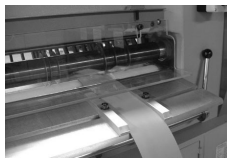
LX 0001

Machinery for Handling Flat Belts.

300 and 500-mm circular **slitters,** which cut up to a thickness of 7 mm.

Skiving machine developed for bevelling the ends of belts to be spliced.

Portable **presses** for splicing belts of different widths (30, 50 , 100 and 300 mm).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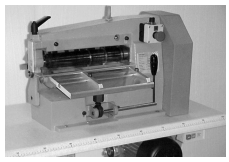
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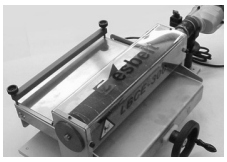
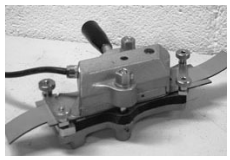

LBCE300

LPCE300


LPCZ50

LPCZ30

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Esbelt reserves the right to change the specifications of its products without prior notice. January 2012