

Cleats (flights)

for conveyor belting

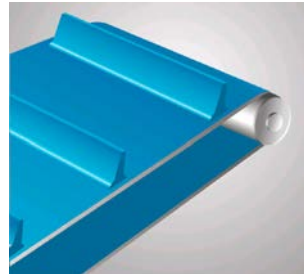
Inclined conveyors occasionally require belts with profiles or cleats (flights) on the carrying surface. These prevent slippage of the conveyed material and increases the belt capacity.

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

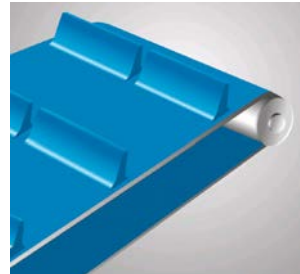
Notched PVC and PU trapezoidal tracking guides can be supplied; this increases belt flexibility and when fitted to the underside of the belt can reduce the minimum pulley diameter by 10%.

esbelt cleats (flights) are oil and fat resistant.

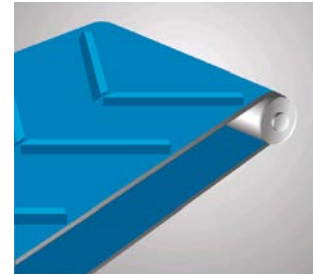
Examples of possible cleat (flight) arrangements are as follows:



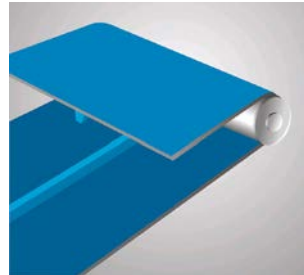
Single transverse cleat



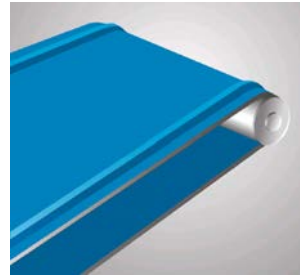
Double transverse cleat



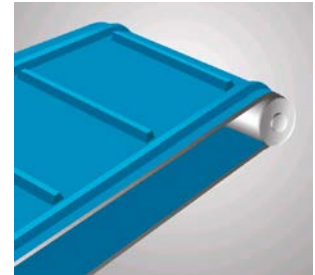
Herringbone "V" pattern



Inner tracking guide

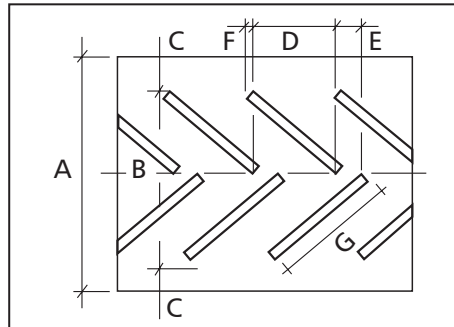


Retaining sidewalls



Single transverse cleat with retaining sidewalls.

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



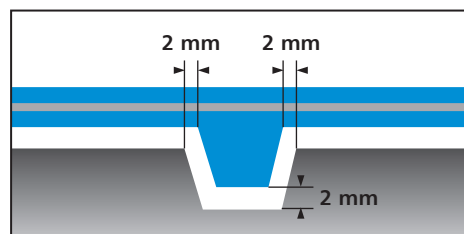
Dimensions mm							
A	400	500	600	650	800	1000	1200
B	300	400	450	480	600	800	900
C	50	50	75	85	100	100	150
D	180	205	210	225	286	348	390
E	20	20	20	20	20	20	20
F	18	18	24	30	50	60	60
G	250	300	325	350	450	550	600

Recommendations for profile attachment

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

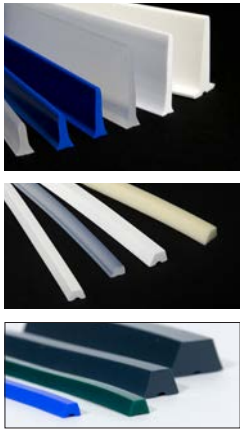
Minimum covers thickness for profile type are given below.

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

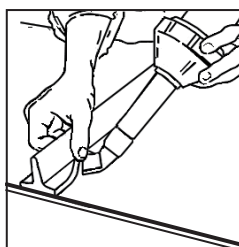
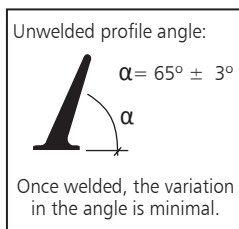
Cleats (flights)



Section	Type	Dimensions			Material (1)	Weight g/m	Transverse		Longitudinal		Possible positioning (3)				
		b mm	h mm	a mm			minimum pitch mm	minimum \varnothing (2) mm	minimum \varnothing mm (2)						
									bottom side	top side					
	NE.008	8	8		PVC	75	28	100	60	110	T - G - L - V				
	NE.012	12	12		PVC	175	32	100	80	120					
	PE.008	8	8		PO	56	28	100							
	PE.012	12	12		PO	133	32	100							
	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	8	5	4,4	PVC	40	28	50	50	60	T - G - L - V				
	NE.Z06-62	10	6	5,6		60	30	70	70	80					
	NE.A08-62	13	8	7,2		100	33	90	90	100					
	NE.B11-62	17	11	9,0		180	37	100	100	120					
	NE.C14-62	22	14	11,8		300	42	150	150	180					
	NE.K16-70	30	16	18,4		470	50	250	250	250					
	UE.Y05	8	5	4,4	PU	40	28	50	50	60	T - G - L - V				
	UE.Z06	10	6	5,6		59	30	70	70	80					
	UE.A08	13	8	7,2		98	33	90	90	100					
	UE.B11	17	11	9,0		170	37	100	100	120					
	PE.Z06	10	6	5,6		46	30	100				T - V			
	PE.A08	13	8	7,2		75	33	110							
PE.B11	17	11	9,0	130	37	120									
	EE.Z06	10	6	5,6	TPE	56	30	80		80	T - G - L - V				
	EE.A08	13	8	7,2		95	33	90		100					
	EE.B11	17	11	9,0		167	37	100		120					
	DA.X04-62	6	3,5	4,25		PVC	18			15			G - L		
	DE.Y05-62	8	4,5	4,7			30			35					
	DE.Z06-70	10	5,5	6,0			45			50					
DE.A08-62	13	7,5	7,5	75				70							
DE.B11-62	17	10,5	10,3	140				80							
DE.C14-62	22	13,5	12,2	245				125							
	DE.K16-70	30	15,5	18,4	370			170							
	DUE.Z06	10	5,5	6,0	PU	45			50		G - L				
	DUE.A08	13	7,5	7,5		74			70						
	DUE.B11	17	10,5	9,0		130			80						
	NV.020-70	25	20			PVC	285		120				T		
	NV.030-70	25	30				370		120						
NV.040-70	25	40		450			45	120							
NV.050-70	25	50		600			120								
NV.060-70	25	60		700			150								
	NL.030-70	25	30		PVC		430	50	120			T			
	NL.040-70	25	40			550	50	120							
	NL.050-70	25	50			700	50	120							
	NL.060-70	25	60			780	50	150							
	NL.070-70	40	70			1240	130	170							
	NL.080-70	40	80			1400	130	180							
	UV.020	10	20		PU	140		40			T				
	UV.030	10	30			180	30	45							
	UV.050	10	50			300		50							
	PV.020	10	20			PO	95						T		
	PV.030	10	30				135	30	100						
	PV.050	10	50				235								
EV.020	10	20		TPE	130						T				
EV.030	10	30			170		30	80							
EV.050	10	50			300										
UL.030	10	30			PU	215	40	45				T			
UL.050	10	50				320		50							
PL.030	10	30				PO	155							T	
PL.050	10	50		225			40	100							
EL.030	10	30		TPE			210						T		
EL.050	10	50					310	40	80						
	NEM.040-62	45	40				PVC	640		120					T
	NEM.060-62	55	60					blando	1050		150				
	NEQ.040-62	42	40			PVC	635		120			T			
	NEQ.060-62	60	60				blando	1150		150					
	NEQ.070-62	60	70		blando		1400		170						

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

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



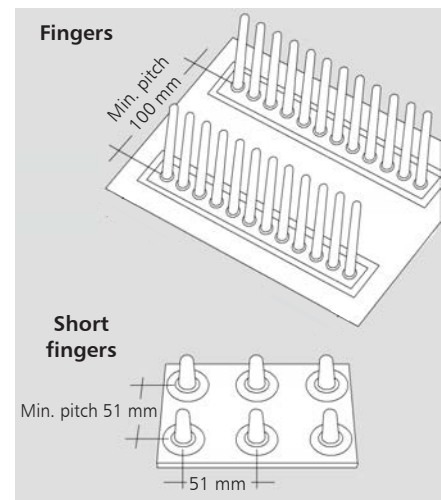
(1) Material	Color	Special characteristics	Hardness	Temperature °C	
PVC	PVC	Green 00 - White - Blue 06	FDA, EU, antistatic, oil resistant	70° ShA	-10 +80
soft PVC	PVC	Green 00 - White - Blue 06	FDA, EU, antistatic, oil resistant	62° ShA	-15 +80
PU	Polyurethane	Green 09 - White - Blue 06	FDA, EU, oil resistant	85° ShA	-10 +100
PO	Polyolefin	Transparent	FDA, EU, oil resistant	90° ShA	-10 +50
TPE	Polyester	Natural	FDA, EU, oil resistant	40° 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 appearance) 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.

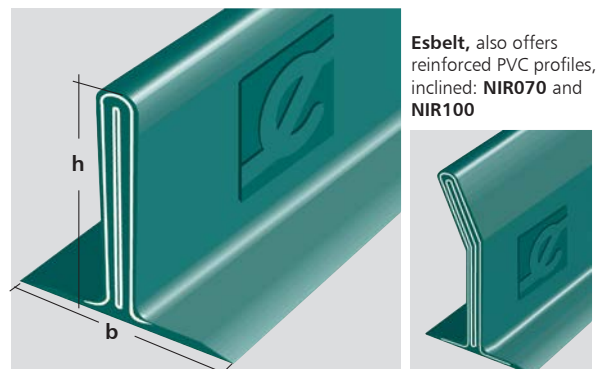


Profile	Height mm	Hardness °ShA	Color	ø minimum mm
Fingers	92	80	White - Green	100
Short fingers	25	67		60

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		Length mm	Color
	b mm	h mm	Minimum pitch mm	minimum ø (2) mm		
NRR030	50	30	70	120	2000 mm strips	Blue 06, White and Green 00
NRR050		50				
NRR070		70				
NRR100		100				
NIR070		68				
NIR100		97				



Belt support on the return side

