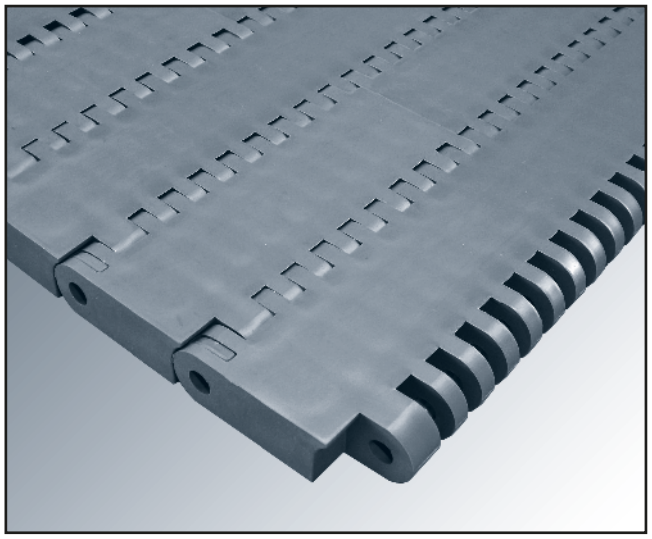
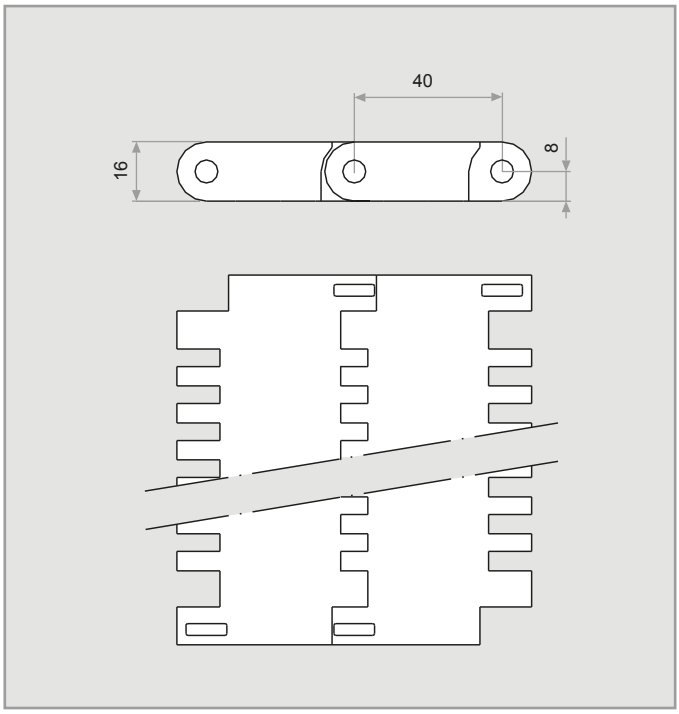
SERIES E40 FLAT TOP





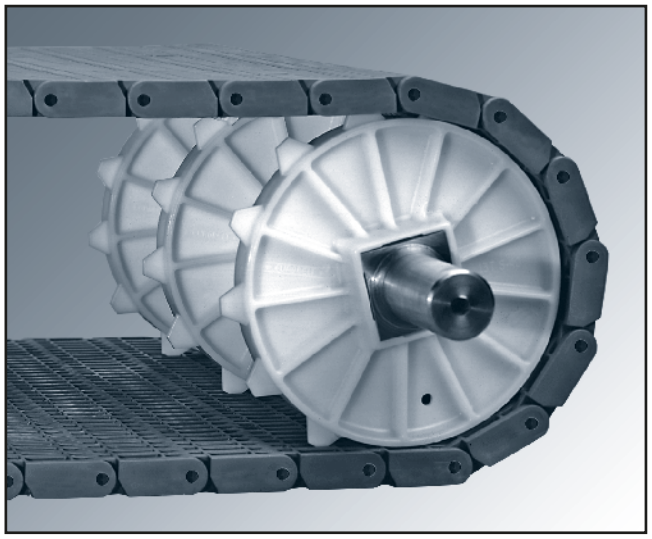
Eurobelt Series E40 Flat Top, given the closed surface configuration, is the suitable conveyor belt for those applications in which it is not necessary any drainage through the belt and/or the product to be transported is small. Due to its great mechanical resistance, it is ideal for applications having large conveyance lengths or bearing very heavy loads.

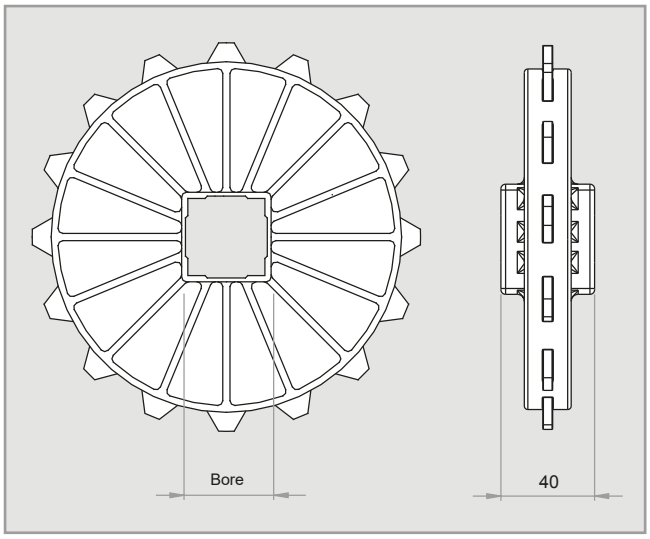
Pitch	40 mm
Surface	Flat Top
Open area	0 %
Thickness	16 mm
Drive system	Central
Belt width	Multiples of 10 mm
Rod diameter	Ø 6 mm
Retention system	Cap

Material of the belt	Material of the rod	Belt strength (kg/m)	Temperature range (ºC)	Belt weight (kg/m²)	Available colours in stock
PP - Polypropylene	PP - Polypropylene	3,600	+1 to +104	11.01	[W] - [G]
PE - Polyethylene	PE - Polyethylene	2,730	-50 to +65	11.34	[N]
AC - Polyacetal	PP - Polypropylene	4,910	+1 to +90	16.42	[B]
	PE - Polyethylene	4,350	-40 to +65	16.72	[B]

Colours: [W] White - [G] Grey - [B] Blue - [N] Natural - [O] Black. // The materials and colours that are normally in stock are those above indicated. In special cases in which it is needed a belt in a material or colour different from those above mentioned, you should ask directly to EUROBELT.

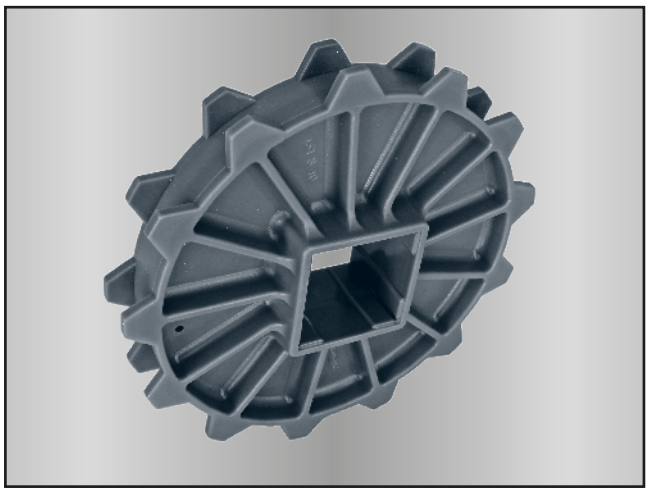
ACCESSORIES [SPROCKETS]





Nº of teeth T	Pitch diameter	Bore for square shaft		Hub width	Materials
		mm	inch		
8	104.5	40	1.5"	40	Polypropylene Polyacetal Stainless steel
10	129.4	40 60	1.5"	40	
13	167.1	40 60	1.5"	40	
16	205	40 60	1.5"	40	
20	255.7	40 60 90	1.5"	40	

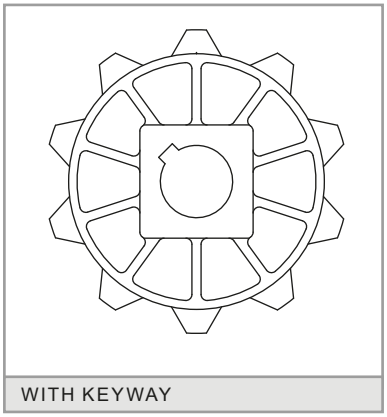
DOUBLE-TOOTHED SPROCKET



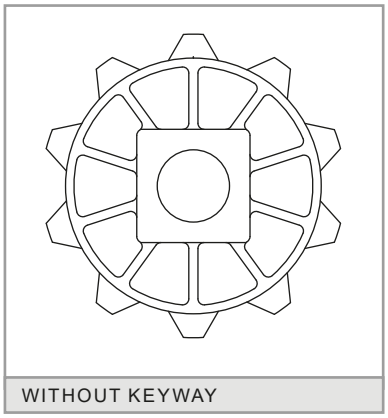
Nº of teeth T	13
Ø Pitch	167.1
Bore for square shaft (mm)	40 60
Bore for square shaft (inch)	1.5" 2.5"
Hub width	40
Materials	Polypropylene Polyacetal

ACCESSORIES [[SPROCKETS AND RETAINING RINGS]

SPROCKETS FOR SQUARE SHAFT



WITH KEYWAY



WITHOUT KEYWAY

We have plastic sprockets for round shaft with and without keyway. We also have sprockets to be used with motor drum in applications needing a special cleaning or in conveyors in which it is not possible to place the motor in the outside due to problems of space or safety.

INSTALLATION

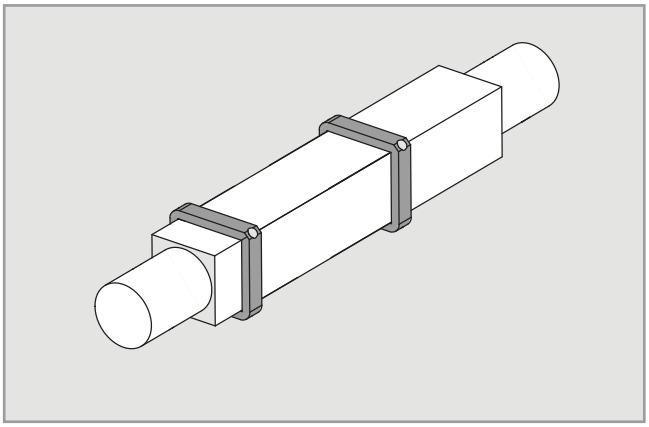
These rings are placed at every side of the central sprocket to fasten it to the shaft in order to avoid any lateral movements of the belt.

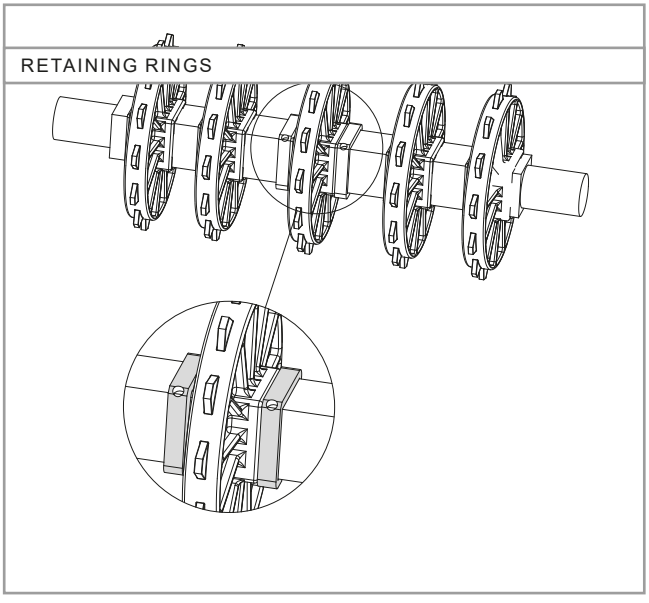
They are manufactured in AISI 316 stainless steel and they are fixed by means of a set screw stuffed in the ring itself.

One sprocket, duly fixed with 2 retaining rings, should be put in the centre. Then you should place the same quantity of sprockets at every side of the central one but without any fixing, as they will absorb the possible belt expansions and contractions.

The same procedure should be carried out in both shafts.

Bore for square shaft	Screws
40	M 6 x 6
60	M 6 x 6
90	M 6 x 6



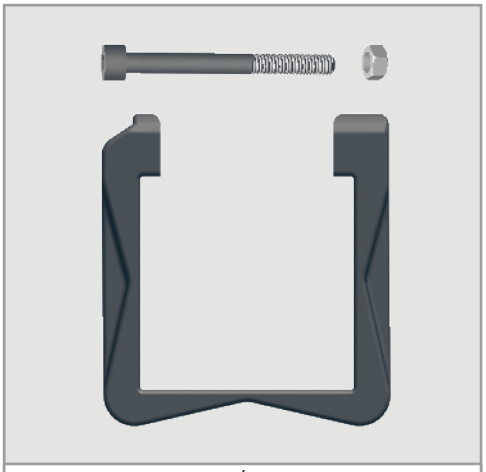


RETAINING RINGS

CENTRAL SPROCKET

ACCESSORIES [FASTENING RING CLU]

The CLU Eurobelt retainer rings guarantee the fastening of the Central Sprocket on both drive and idle shafts.



ANILLO DE RETENCIÓN CLU

High-resistance ACETAL.

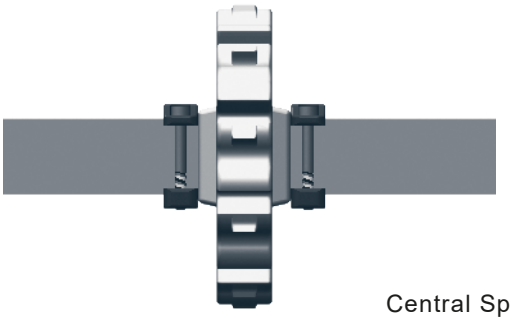
Working temperature: +60ºC / -40ºC

Pour arbre carré de 40 mm ó 1 ½"

The belt can expand or contract due to the temperature.

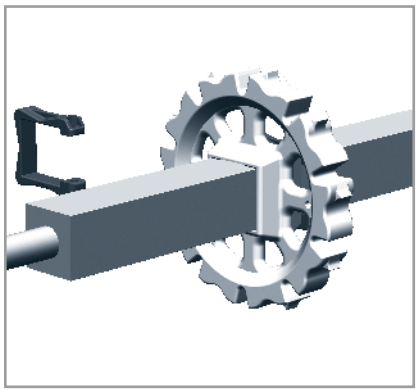
The drive system of modular belts requires the central sprocket not to move axially both in the drive and the idle shafts.

The rest of sprockets can slide freely on the shaft adapting to the possible changes of the belt, so that the correct position of the teeth is guaranteed.

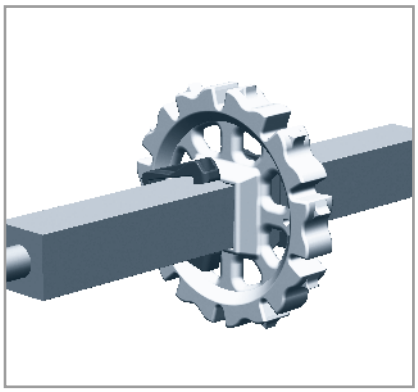


Central Sprocket

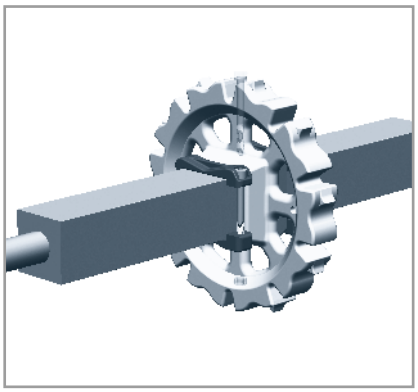
QUICK AND EASY INSTALLATION



1.Direct installation without dismantling the shaft.

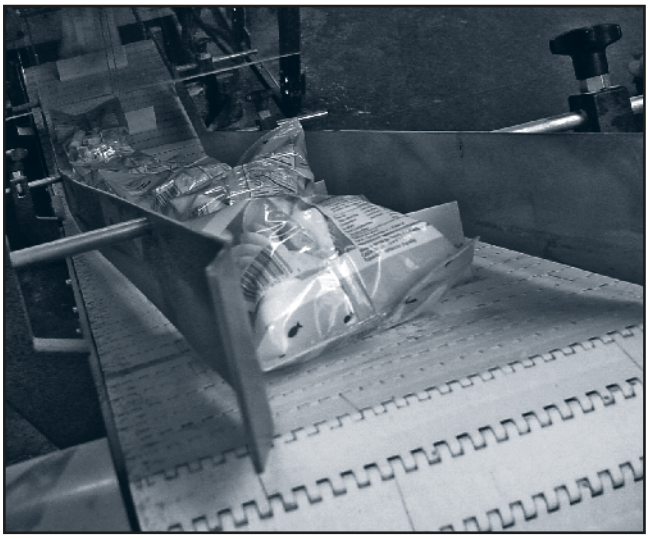


2.Easy placing on the shaft by opening the ring.



3.Reliable closing of the ring by means of a screw and nut at a low cost.

ACCESSORIES [FLIGHTS AND SIDE GUARDS]



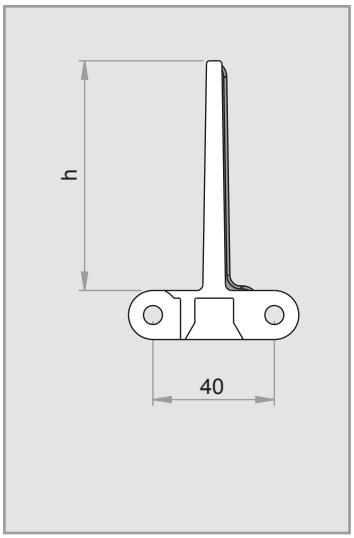
The **flights** are plastic accessories to be inserted across the belt. They are used to push the product in ascent, descent or accompaniment applications, avoiding that it slips along the belt.

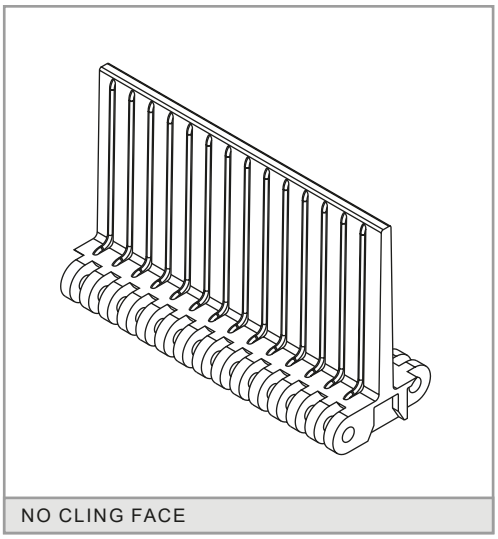
Its non-stick side has ribs that project over the surface to prevent the product from sticking.

The **side guards** are plastic accessories to be inserted into the belt structure to retain the product laterally, avoiding overflows and frictions with the conveyor structure itself.

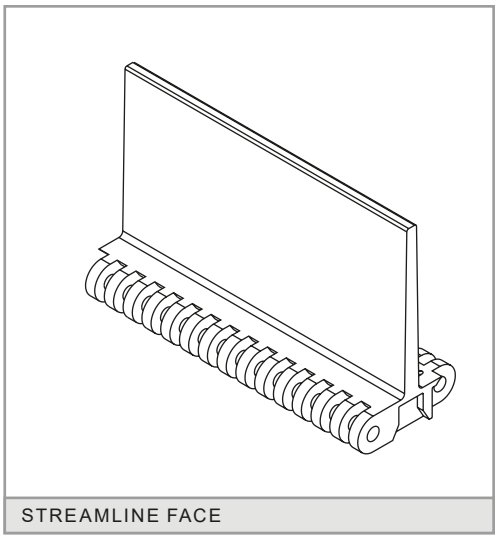
It is possible to cut down the standard height for special applications.

STRAIGHT FLIGHT [STREAMLINE + NO CLING]





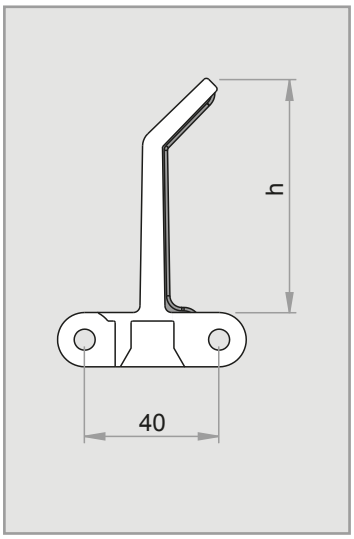
NO CLING FACE

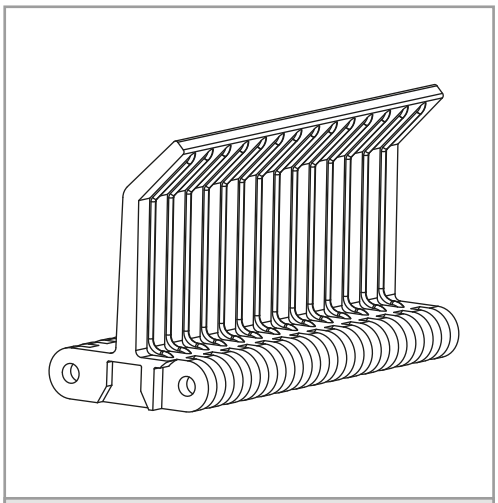


STREAMLINE FACE

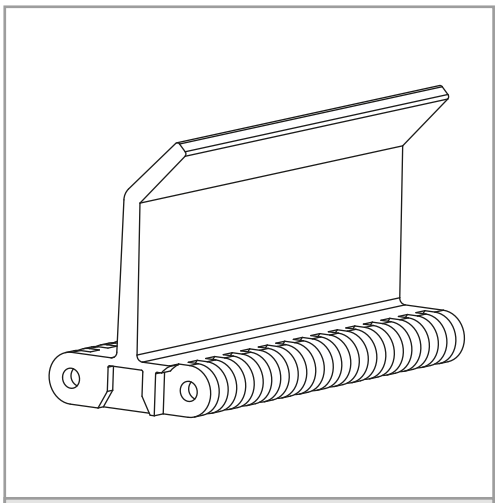
Accessories	Height (h)	Materials
Straight flight	25 50 75 100	Polypropylene Polyethylene Polyacetal

BENT FLIGHT





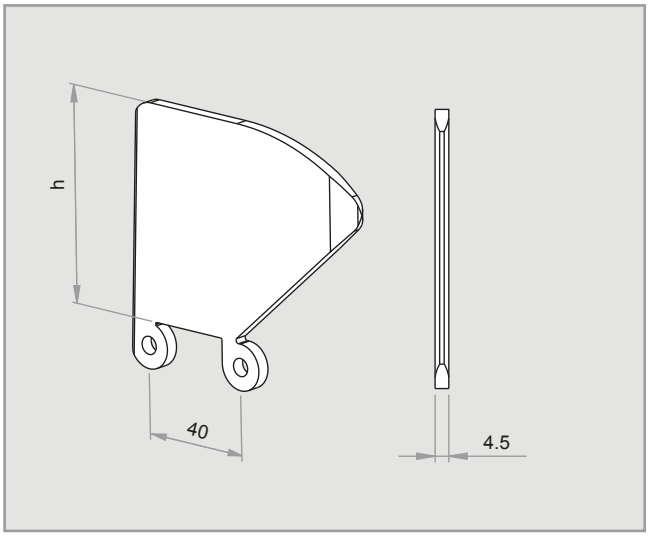
NO CLING

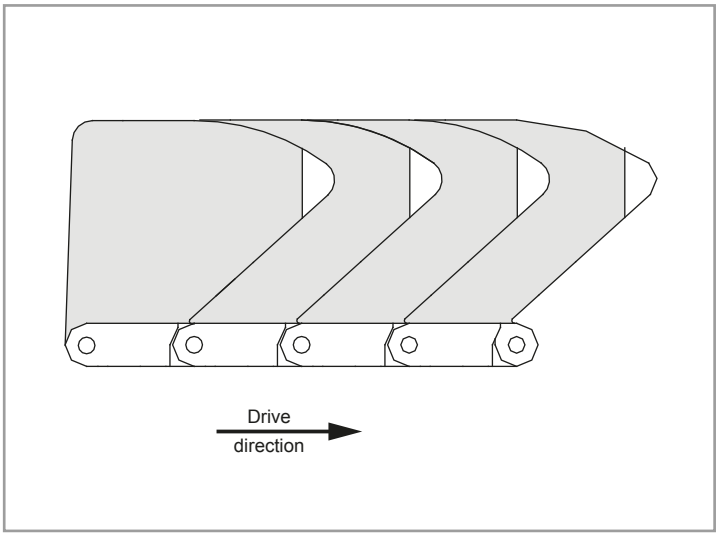


STREAMLINE

Accessories	Height (h)	Materials
Bent Flight	45 70 90	Polypropylene Polyethylene Polyacetal

SIDE GUARDS

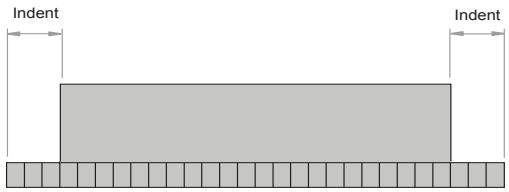




Accessories	Height (h)	Materials
Side guards	50 75 100	Polypropylene Polyethylene Polyacetal

TECHNICAL DATA [FLIGHTS AND SIDE GUARDS]

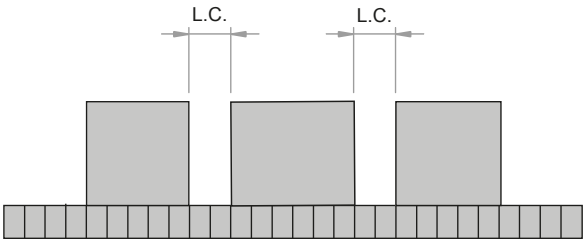
BELT ONLY WITH FLIGHTS



Indent = Multiples of 10 mm (30 mm the minimum)[1].

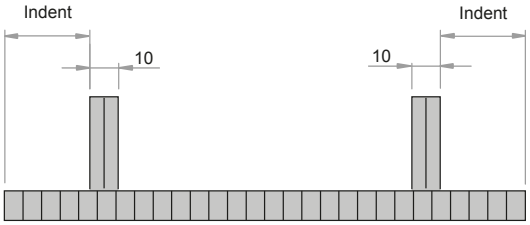
Distance between flights = Multiples of 80.

BELT WITH LONGITUDINAL CUTS



Flight longitudinal cut = increment of 10 mm (minimum 30 mm)

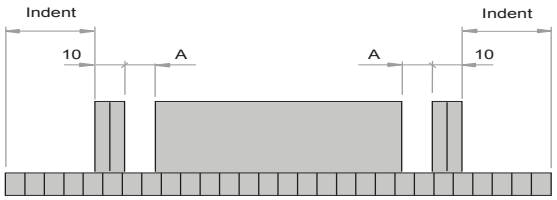
BELT ONLY WITH SIDE GUARDS



Indent = Multiples of 10 mm (30 mm the minimum).

Multiples of 10 + 5 mm (35 mm the minimum).

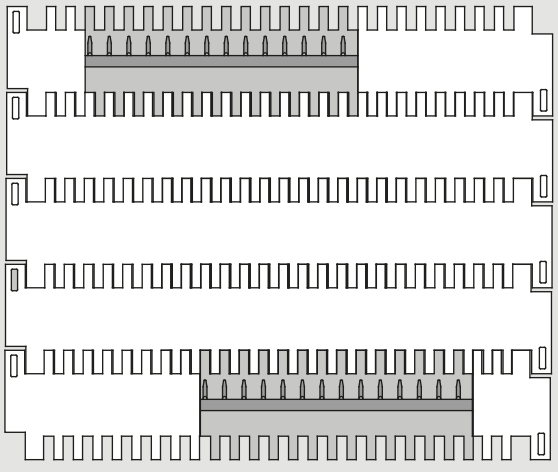
BELT WITH FLIGHTS AND SIDE GUARDS



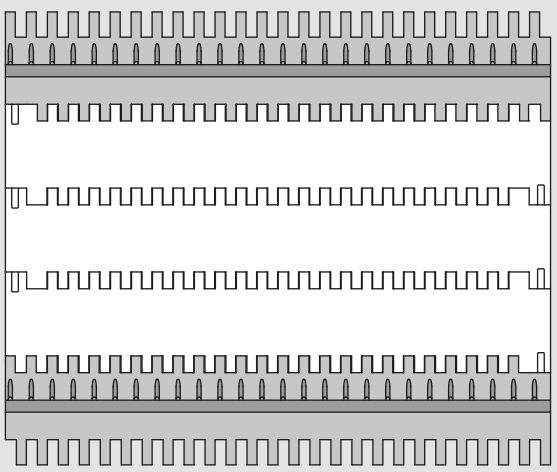
Indent = Multiples of 10 mm (30 mm the minimum). A= 10 mm

Multiples of 10 + 5 mm (35 mm the minimum). A= 5 mm

BELT WITH ZIGZAG FLIGHTS

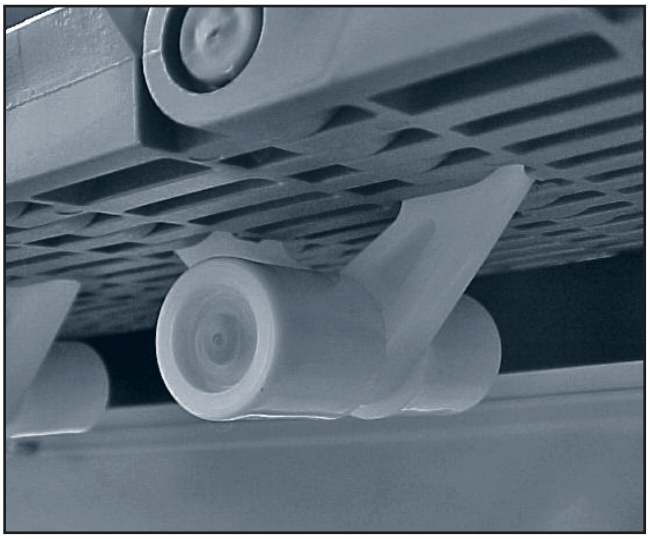


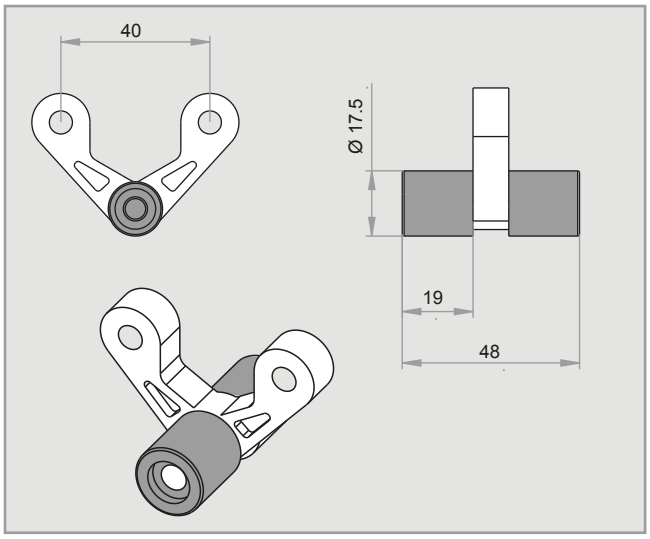
BELT WITH FLIGHTS, WITHOUT INDENT



[1] Ask for the possibility of shaping your belt with a smaller indent than that recommended.

ACCESSORIES [HOLD-DOWN ROLLERS]





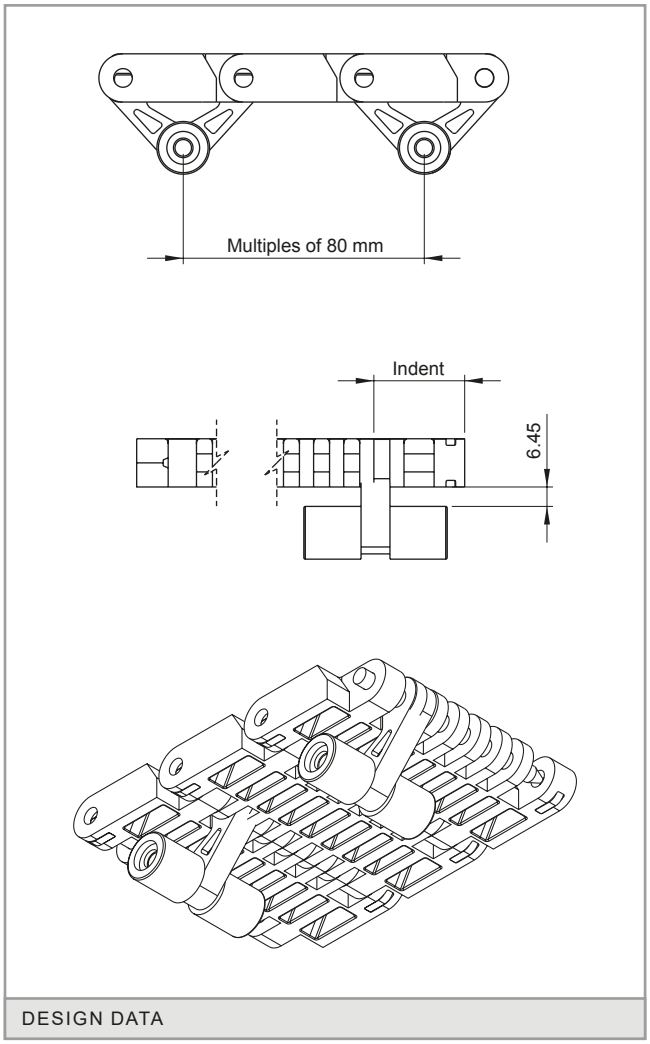
They are used to fasten the belt to the conveyor in all the inflexions.

In applications in which the belt must be submerged, they are placed in the middle of the belt to prevent it from getting bent due to the flotation.

They will roll along rails fastened throughout the conveyor structure. It is recommended to place wearstrips to avoid the wear owing to rolling as far as possible.

The distance between the side edge of the belt and the centre of the hold-down roller (indent) must be a multiple of 5 mm. Hold-down rollers cannot be used with the following sprockets:

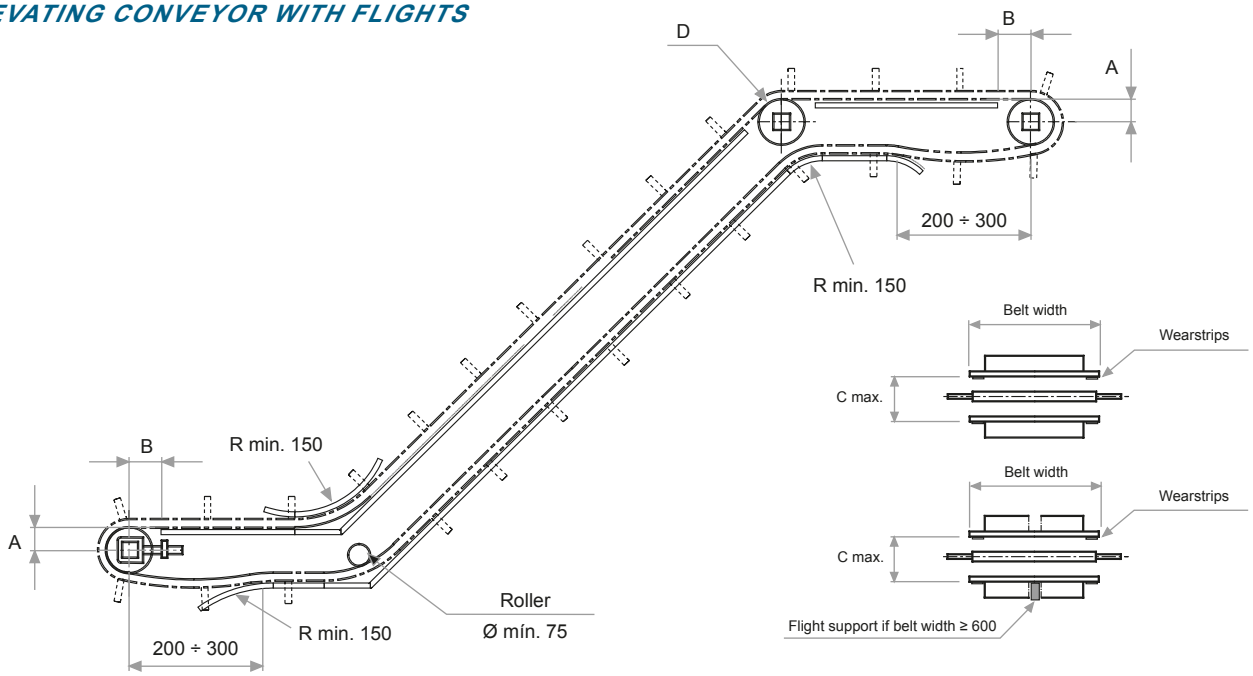
Nº of teeth T	Bore for square shaft
8	40
10	60



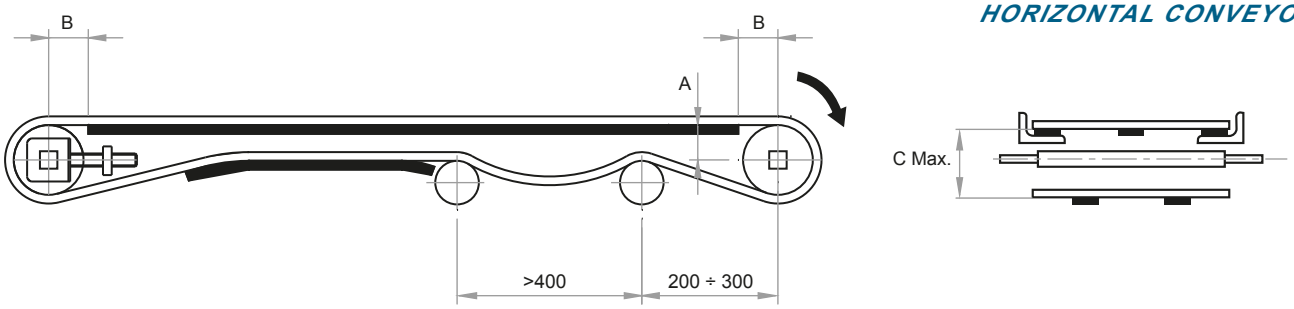
DESIGN DATA

CONSTRUCTION DATA [CONVEYOR]

ELEVATING CONVEYOR WITH FLIGHTS



HORIZONTAL CONVEYOR



[A] Distance between the sliding surface of the belt and the centre of the shaft.

[B] Distance between the vertical of the shaft and the beginning of the sliding surface.

[C] Distance between the sliding surface of the belt and the support of the return way.

[D] If sprockets are used in the inflexion shaft, do not retain the central one.

[R] This radius must be as big as allowed by the application in order to minimize the wear (min. 150 mm). For belts with side guards, consult about this radius.

In the construction of conveyors, the distances appearing in the chart below must be respected according to the belt Series and the size of the sprockets.

Nº of teeth T	Ø Pitch	A	B max.	C max.
8	104.5	43	45	105
10	129.4	56	55	130
13	167.1	75	70	165
13D	167.1	75	70	165
16	205	94	80	205
20	255.7	120	90	255

[Dimensions in mm]

TABLE OF SPROCKETS AND WEARSTRIPS

Belt nominal width (mm)		Minimum quantity of sprockets per shaft	Minimum quantity of wearstrips	
			Transport way	Return way
60	150	1	2	2
160	450	3	2	2
460	750	5	3	2
760	1,050	7	5	3
1,060	1,350	9	6	4
1,360	1,650	11	7	5
1,660	1,950	13	9	6
1,960	2,250	15	10	7
2,260	2,550	17	11	8
2,560	2,850	19	12	9
2,860	3,150	21	14	10
3,160	3,450	23	15	11
3,460	3,750	25	16	12
3,760	4,050	27	18	13

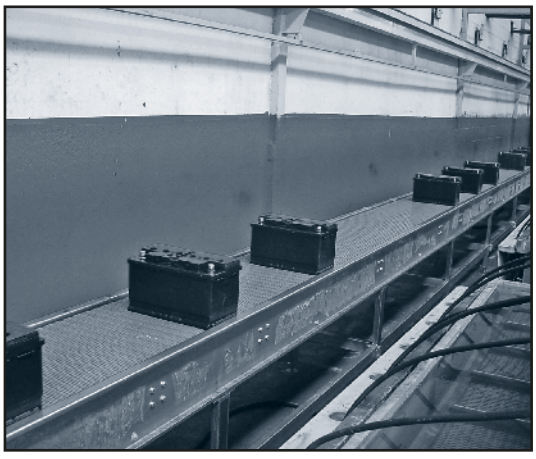
To calculate the necessary minimum quantity of sprockets for the drive shaft as well as for the idle one, the next formula has been used:

$$\text{Minimum quantity} = \frac{\text{Belt width (mm)}}{150 \text{ mm}}$$

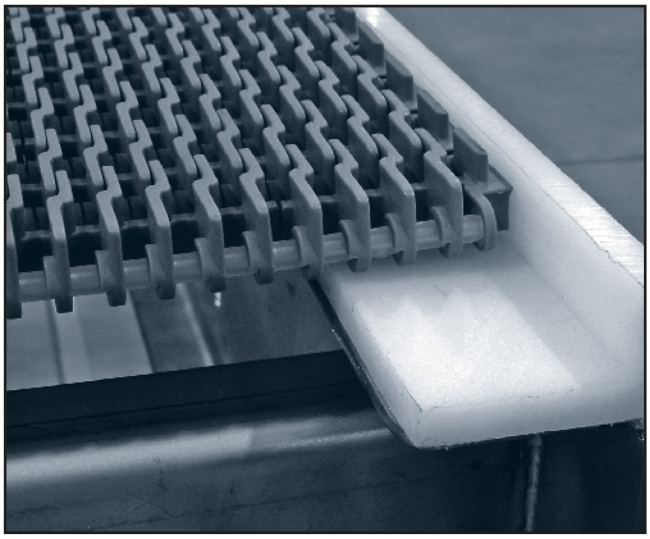
This amount must always be odd.

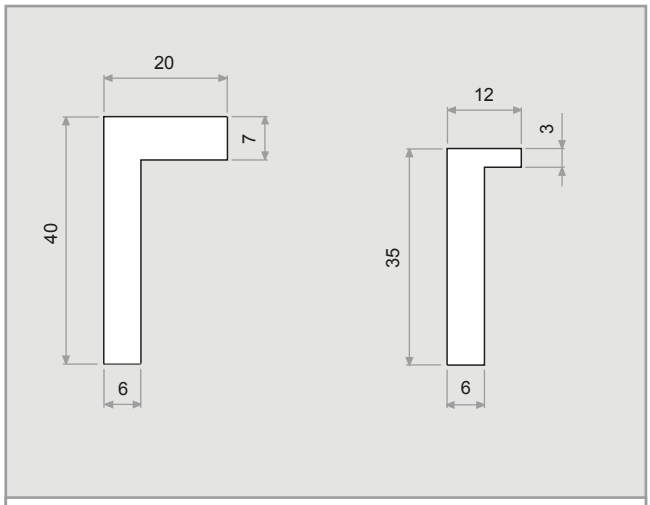
To calculate the quantity of supports, the weight of the product to be transported must be taken into account.

The distance between supports should not exceed 230 mm in the transport way or 300 mm in the return way.



ACCESSORIES [HOLD-DOWN PROFILES]



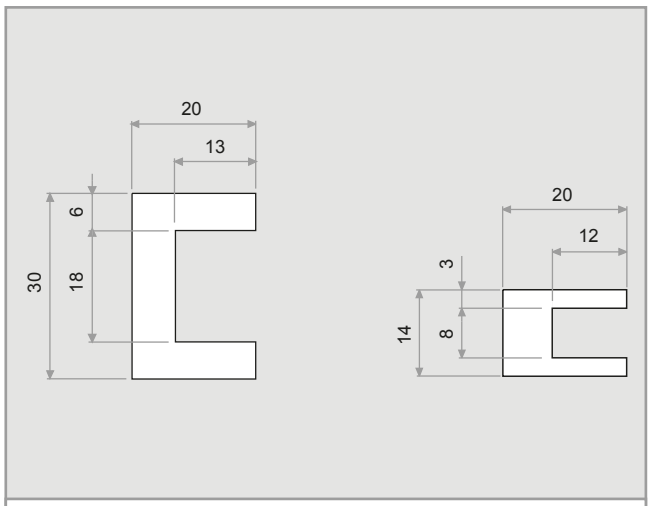


PROFILES IN L

To make the fastening and the support of the belt, EUROBELT has designed two types of hold-down profiles with different geometries, but with the same uses and services.

These profiles, with a low coefficient of friction, are placed between the belt and the structure of the conveyor, reducing the wear of the surfaces in contact, which contributes to prolong the life of the belt.

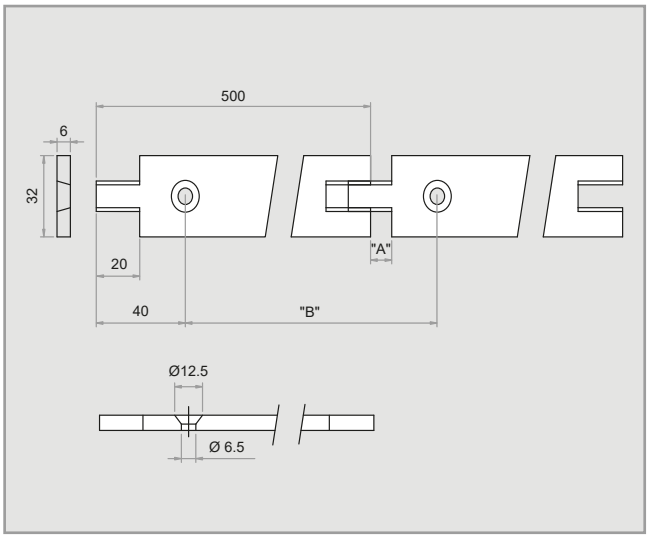
EUROBELT offers all the hold-down profiles in special polyethylenes with very good sliding properties and an excellent resistance to impact.



PROFILES IN U

Accessories	Dimensions	Materials
Profiles in L	40 x 20 x 2.000	Polyethylene
	35 x 12 x 2.000	
Profiles in U	20 x 30 x 2.000	
	20 x 14 x 2.000	

ACCESSORIES [WEARSTRIPS]



The flat wearstrips are fastened by means of flatheaded plastic screws, which contributes to obtain a smooth surface free of any possibility of hooking.

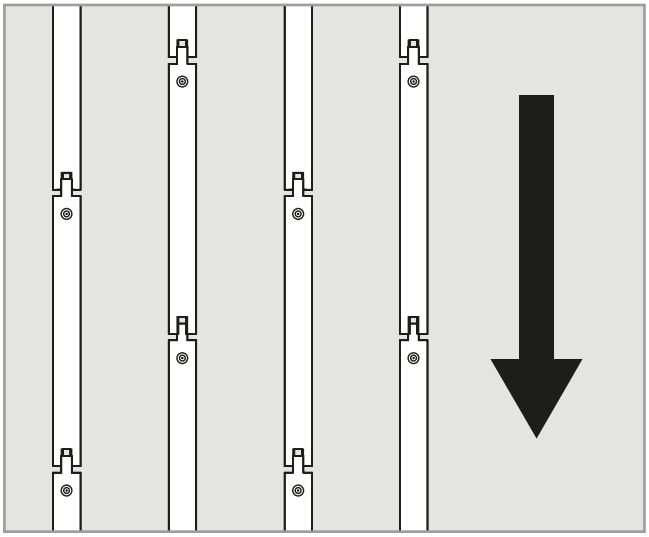
The dimensions of those screws are: M 6 x 25 mm.

Due to their dovetail design, they can adapt to possible longitudinal contractions and expansions of the belt.

Dimensions	Materials
6 x 32 x 500	Polyethylene Conductive polyethylene Polyacetal

The wearstrips arrangement is an important factor in the life span of a conveyor belt. It should be chosen the most suitable configuration according to the transport needs. To calculate the quantity of supports, the weight of the product to be conveyed should be taken into account.

PARALLEL RUNNERS



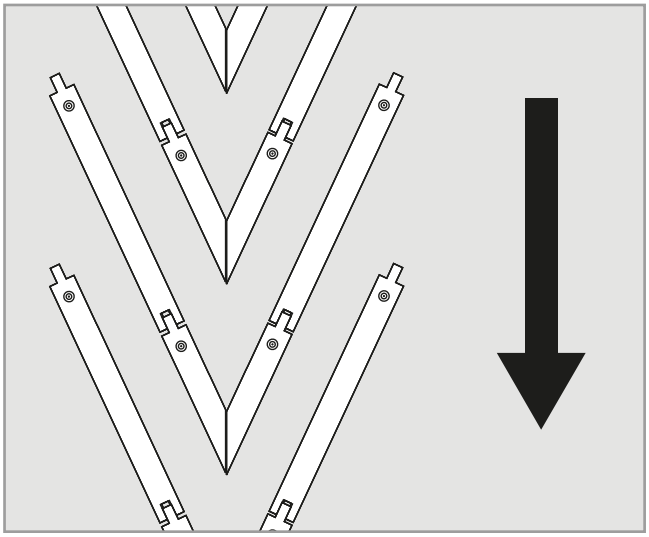
It consists of placing the wearstrips in a parallel and continuous way along the conveyor structure.

It is preferable to position them so that the joints do not coincide.

This is probably the simplest and most economical configuration although, depending on the load to be transported, uneven wears can arise on the back surface of the belt.

It is not advisable for applications with a very heavy load.

CHEVRON ARRAY



The wearstrips are placed throughout the length and breadth of the conveyor, as shown in the picture above.

The possible wear that might occur will be even all over the belt, since it is resting on the wearstrips lengthwise and breadthwise.

With this angle-shaped layout the cleaning and the removal of wastes are easy.

It is advisable for applications bearing heavy loads or for high speeds.