

Pitch	30 mm
Turn radius for curves	2.2 times the belt width
Drive system	Hinge
Belt width	Multiples of 25 mm
Advised minimum width	150 mm
Rod diameter	Ø 8 mm

**FLUSH GRID WITH NO TAB**



**FLUSH GRID WITH TAB**



**CONIC FRICTION**



**CONIC**



**SLIDING ROLLERS**

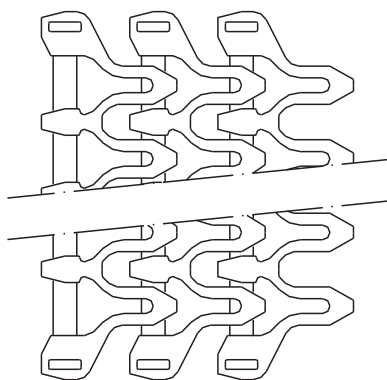
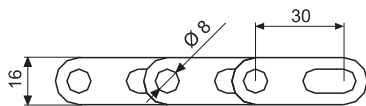


SERIES 93 FLUSH GRID WITHOUT EDGE TAB



Pitch	30 mm
Surface	Flush Grid
Open area	47%
Thickness	16 mm
Turn radius for curves	2.2 times the belt width
Drive system	Hinge
Belt width	Multiples of 25 mm
Advised minimum width	150 mm
Rod diameter	Ø 8 mm
Retention system	Clip

Material of the belt	Material of the rod	Belt strength (kg/m)		Temperature range (°C)	Belt weight (kg/m <sup>2</sup> )	Available colours in stock
		Straight	Curved			
Polypropylene	Polyacetal	2,400	170	+1 to +90	7.14	white - grey
Polyethylene	Polyacetal	1,520	100	-50 to +65	7.39	natural
Polyacetal	Polyacetal	3,800	170	-40 to +90	9.80	blue - natural



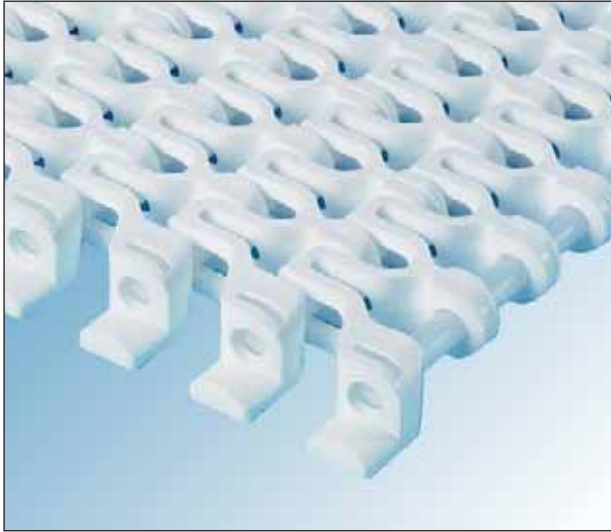
- Repose and fermentation belts
- Cooling and/or freezing tunnels
- Vertical accumulation
- Elevating and descending spirals
- Aseptic transport lines
- Selection tables in closed circuit



With a pitch of 30 mm and thanks to its design, it permits all kind of turns.

Its has a Flush Grid geometry, with a 47% open area, and smooth and rounded edges which provide an excellent drainage. It is very easy to clean and it has great sliding properties, as well as very low maintenance costs.

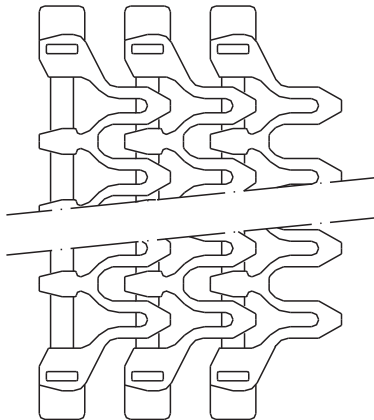
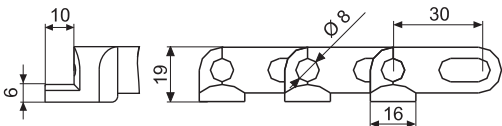
## SERIES 93 FLUSH GRID WITH EDGE TAB



Pitch	30 mm
Surface	Flush Grid
Open area	47%
Thickness	19 mm
Turn radius for curves	2.2 times the belt width
Drive system	Hinge
Belt width	Multiples of 25 mm <sup>(1)</sup>
Advised minimum width	150 mm
Rod diameter	Ø 8 mm
Retention system	Clip

Material of the belt	Material of the rod	Belt strength (kg/m)		Temperature range (°C)	Belt weight (kg/m <sup>2</sup> )	Available colours in stock
		Straight	Curved			
Polypropylene	Polyacetal	2,400	170	+1 to +90	7.23	white - grey
Polyethylene	Polyacetal	1,520	100	-50 to +65	7.44	natural
Polyacetal	Polyacetal	3,800	170	-40 to +90	9.93	blue - natural

<sup>(1)</sup> For a belt with tabs, its width will always be referred to the usable width without taking into account the tabs.



- Repose and fermentation belts
- Cooling and/or freezing tunnels
- Vertical accumulation
- Elevating and descending spirals
- Aseptic transport lines
- Selection tables in closed circuit

It has a pitch of 30 mm, and its design permits all kind of turns.

The tabs are lateral ends located in the lower edge of the belt which are useful to fasten it without interfering in the transport area, so that the containers can project beyond the belt width in the turns.

The rounded shape of the tabs reduces the points of friction with the hold-down profiles, which contributes to increase the life span of the belt.

SERIES 93 CONIC



Pitch	30 mm
Surface	Conic
Lateral end	Without tab - with tab
Open area	47%
Thickness	16 mm
Turn radius for curves	2.2 times the belt width
Drive system	Hinge
Belt width	Multiples of 25 mm <sup>(1)</sup>
Advised minimum width	150 mm
Rod diameter	Ø 8 mm
Retention system	Clip

Material of the belt	Material of the rod	Belt strength (kg/m)		Temperature range (°C)	Available colours in stock
		Straight	Curved		
Polypropylene	Polyacetal	2,400	170	+1 to +90	white - grey
Polyethylene	Polyacetal	1,520	100	-50 to +65	natural
Polyacetal	Polyacetal	3,800	170	-40 to +90	blue - natural

<sup>(1)</sup> For a belt with tabs, its width will always be referred to the usable width without taking into account the tabs.

SERIES 93 CONIC FRICTION

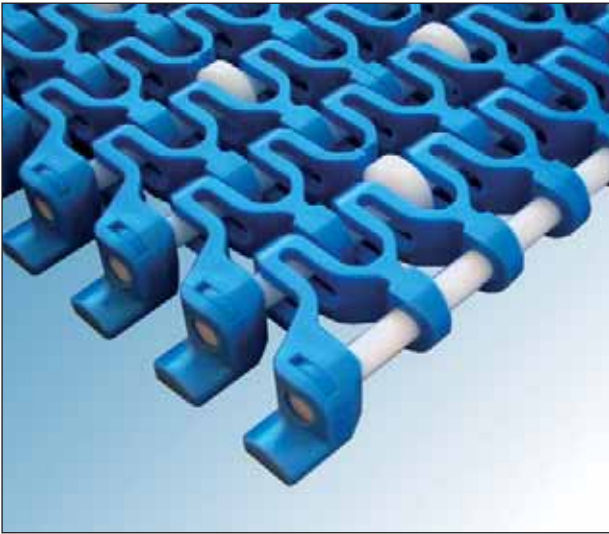


Pitch	30 mm
Surface	Conic Friction
Lateral end	Without tab - with tab
Open area	47%
Thickness	16 mm
Turn radius for curves	2.2 times the belt width
Drive system	Hinge
Belt width	Multiples of 25 mm <sup>(1)</sup>
Rod diameter	Ø 8 mm
Retention system	Clip

Material of the belt	Material of the rod	Belt strength (kg/m)		Temperature range (°C)	Available colours in stock
		Straight	Curved		
Polypropylene	Polyacetal	2,400	170	+1 to +90	white - grey
Polyethylene	Polyacetal	1,520	100	-40 to +65	natural
Polyacetal	Polyacetal	3,800	170	-40 to +90	blue - natural

<sup>(1)</sup> For a belt with tabs, its width will always be referred to the usable width without taking into account the tabs.

## SERIES 93 SLIDING ROLLERS

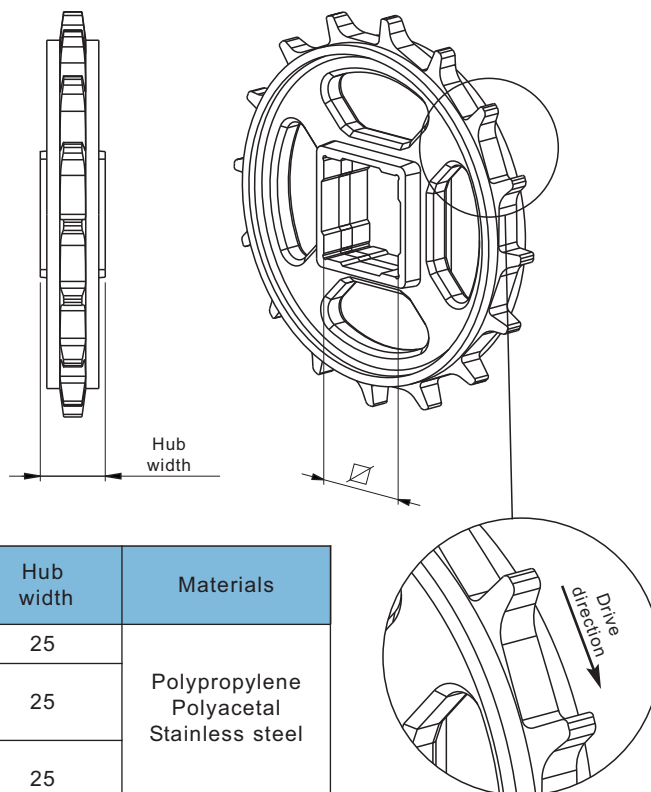
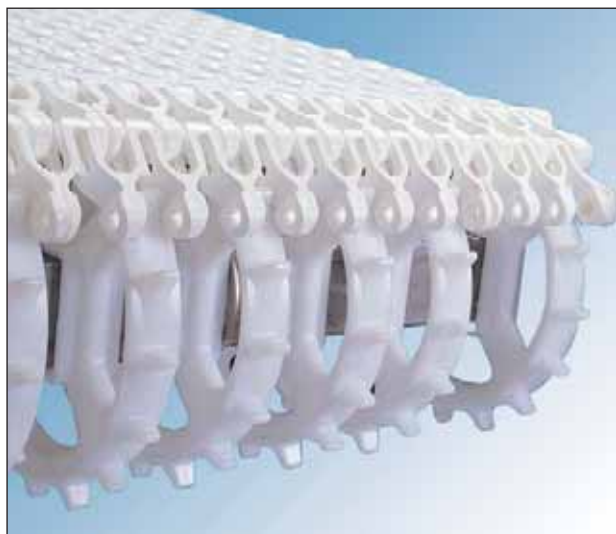


Pitch	30 mm
Surface	Sliding Rollers
Lateral end	Without tab - with tab
Turn radius for curves	2.2 times the belt width
Drive system	Hinge
Belt width	Multiples of 25 mm <sup>(1)</sup>
Rod diameter	Ø 8 mm
Diameter of small roller	Ø 20 mm
Width of small roller	10 mm
Material of small roller	Polyacetal
Retention system	Clip

Material of the belt	Material of the rod	Belt strength (kg/m)		Temperature range (°C)	Available colours in stock
		Straight	Curved		
Polypropylene	Polyacetal	2,400	170	+1 to +90	white - grey
Polyethylene	Polyacetal	1,520	100	-40 to +65	natural
Polyacetal	Polyacetal	3,800	170	-40 to +90	blue - natural

<sup>(1)</sup> For a belt with tabs, its width will always be referred to the usable width without taking into account the tabs.

SPROCKETS



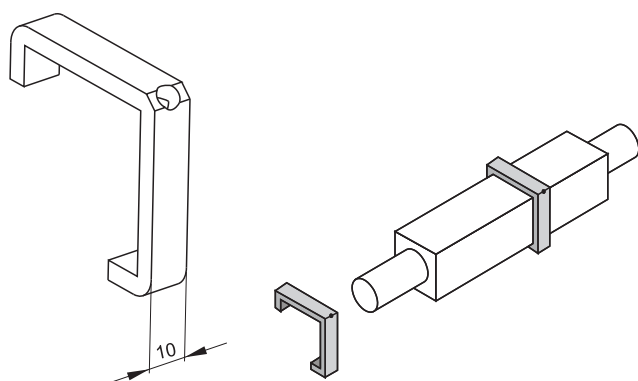
N° of teeth T	Pitch Ø	Bore $\varnothing$		Hub width	Materials
		mm	inch		
11	106.5	40	-	25	Polypropylene Polyacetal Stainless steel
16	153.5	40 60	-	25	
20	191.5	40 60	-	25	

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.



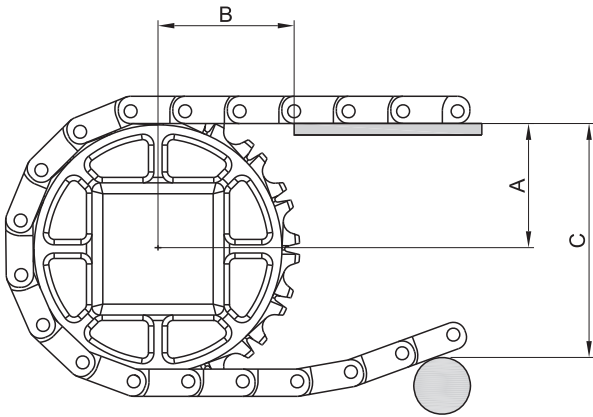
RETAINING RINGS



The fastening of the central sprocket is made through retaining rings manufactured in AISI-316 stainless steel. Their design allows an easy installation without dismantling or grooving the shaft. They are fastened through a screw that remains perfectly fixed in the ring.

Bore $\varnothing$	Screws
40	M 6 x 6
60	M 6 x 6

## DESIGN DATA

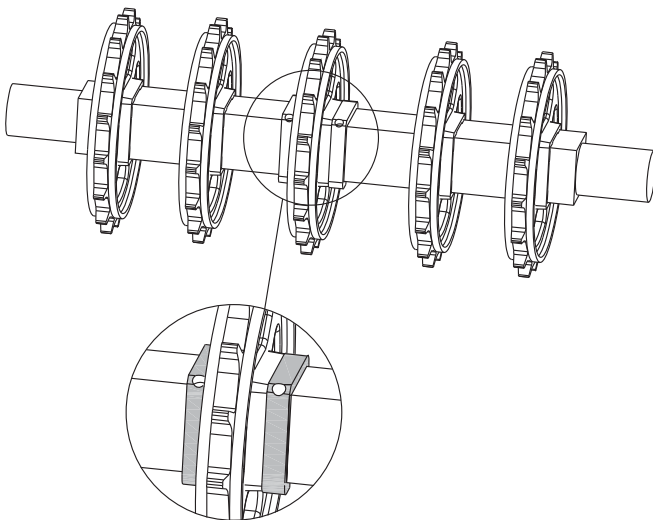


In the building of conveyors, the distances appearing in the table should be respected depending on the sprocket size:

Pitch Ø	A	B max.	C max.
106.5	44	50	115
153.5	69	65	160
191.5	87	75	200

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.

## INSTALLATION



You must put 1 sprocket in the middle fastened with 2 retaining rings. Then you should put the same quantity of sprockets, without any fastening, at each side of that central sprocket. You should proceed the same way in both shafts.

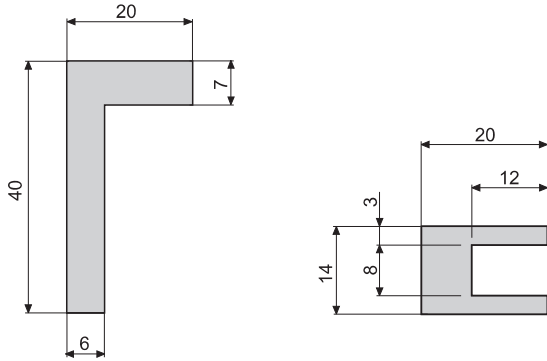
To calculate the necessary minimum quantity of sprockets for the drive shaft as well as for the idle one, the next formula has been used:

$$\text{Minimum quantity: } \frac{\text{Belt width (mm)}}{100 \text{ mm}}$$

This quantity must always be odd.

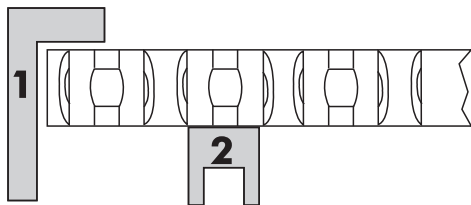
**HOLD-DOWN PROFILES**

The hold-down profiles must always be placed in all turns to fasten the belt. This fastening will be carried out in different ways depending on the type to be used:



Geometry	Dimensions	Material
Profiles in L	40 X 20 X 2,000	Polyethylene
Profiles in U	20 X 14 X 2,000	

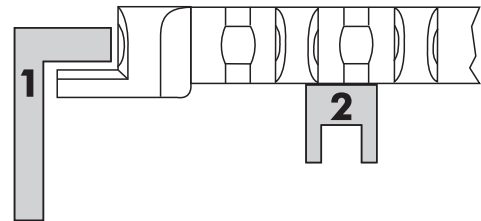
**BELT WITHOUT EDGE TAB**



The fastening will be made above the upper side of the belt.



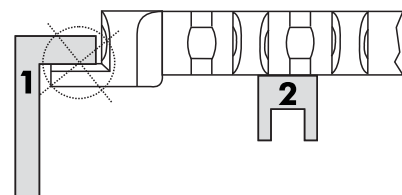
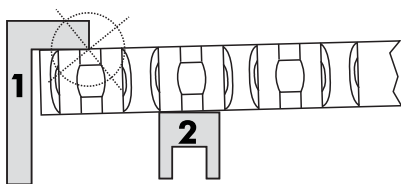
**BELT WITH EDGE TAB**



The fastening will be made over the tab. Thus, the carry way remains free of any interference.



The hold-down profiles must not be in contact with the belt (see the pictures below):



In cases in which there is going to be some manipulation on the belt, the lateral edges should be covered with a protection of 20 mm approximately, as a safety measure.





## TABLE OF SPROCKETS AND WEARSTRIPS

Belt nominal width (mm)		Minimum quantity of sprockets per shaft	Minimum quantity of wearstrips	
			Transport way	Return way
100	150	1	2	2
151	300	3	2	2
301	500	5	3	3
501	700	7	4	3
701	900	9	5	4
901	1,100	11	6	4
1,101	1,300	13	6	5
1,301	1,500	15	7	6
1,501	1,700	17	8	6
1,701	1,900	19	9	7
1,901	2,100	21	10	8
2,101	2,300	23	11	8
2,301	2,500	25	11	9
2,501	2,700	27	12	10
2,701	2,900	29	13	10
2,901	3,100	31	14	11
3,101	3,300	33	15	12
3,301	3,500	35	16	12
3,501	3,700	37	17	13
3,701	3,900	39	18	14
3,901	4,110	41	18	14



To calculate the minimum number of sprockets required both in the drive shaft and in the idle one, you should divide the belt width (in mm) by 100 mm.

This amount must always be odd.

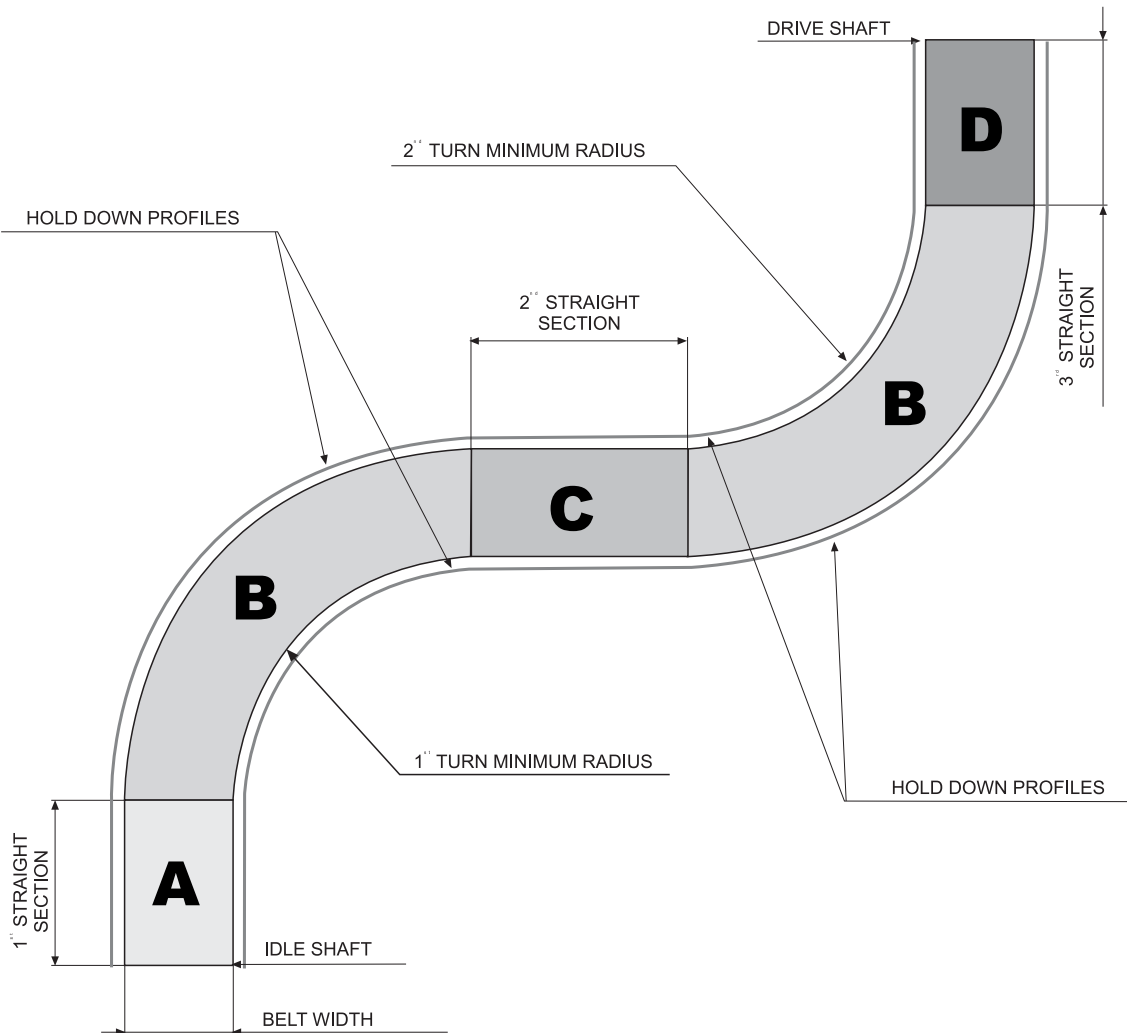


To calculate the quantity of supports, the weight of the product to be transported must be taken into account.

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

DESIGN DATA

RADIAL APPLICATIONS



Before designing a radial conveying system consisting of a curve of 360°, two opposite curves in “S”, or circuits without return, etc., the next conditions must be taken into account:

A- The minimum length of first straight section has to be 1.5 times the belt width. When owing to manufacturing requirements a smaller length is needed, it could be equal to the belt width, but an idle roller should be placed instead of the sprockets.

B- The turn radius for all curves made in Series 93 must be 2.2 times the belt width, measured from the inside.

C- When two consecutive turns are made in opposite directions, the straight section between both of them

must be 2 times the belt width in order to avoid wears in lateral fastenings, as well as high tensions in the belt. If two turns are made in the same direction, a minimum straight distance between them will not be required.

D- The minimum length of the last straight section, near the drive shaft, should be at least 1.5 times the belt width, in order to avoid unnecessary wear in sprockets and problems of alignment.

The total belt length will always be calculated from the outside perimeter of the curve sections.

**SPIRAL**



SERIES 93 can also be used for applications in spiral conveying systems. Its design of flat and rounded edges reduces considerably frictions between the inner curved radius and the drum, getting a smooth power transference from the central drum to the belt, having as a result a saving in energy costs.

Thanks to its design and its technical characteristics, EUROBELT SERIES 93 can be used to make any kind of configuration, giving the appropriate solution to many of your conveying problems.

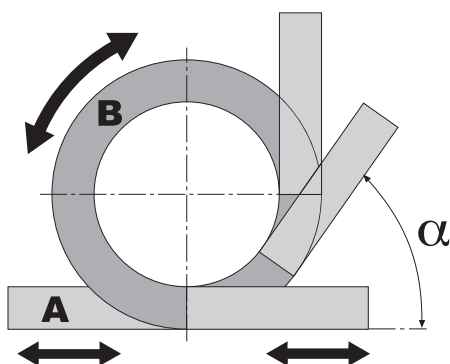
Some of its main applications are:

- Repose and fermentation belts for bakery.
- Elevating and descending conveyors with minimum inclination.
- Cooling and/or freezing belts, as due to the 47% open area you can obtain a great energy transference.
- Special vertical accumulation tables, with a big capacity of storage in a reduced space, thanks to the spiral configuration and to the materials used by EUROBELT.

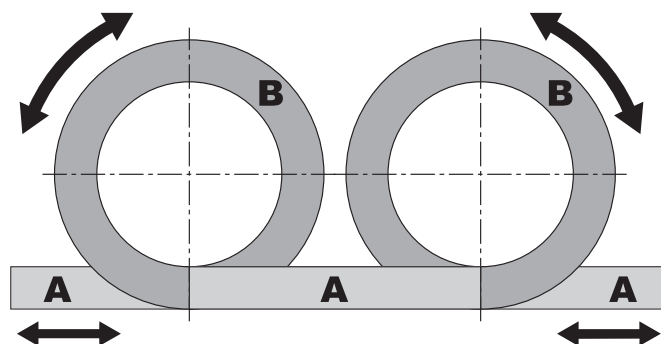
In the pictures below, we can see different possible configurations: one only bidirectional spiral (elevating, descending or bidirectional, picture 1), and two spirals (one of them elevating and the other one descending, or bidirectionals, picture 2):

A- Like in the radial applications, the minimum length of the infeed section as well as that of the outfeed one, must be 1.5 times the belt width.

B- The minimum turn radius must be 2.2 times the belt width. Hold-down profiles should be placed all along the spiral in order to make the fastening of the belt.



Picture 1



Picture 2

## NO CLING FLIGHTS

Accessory to solve problems in incline curved conveyors.



These flights give response to problems arising in elevating, descending and accompaniment applications, preventing the product from sliding on the belt.

They can be used both in right and in curve sections.

They are available in heights of 25 and 50 mm in the following materials: polypropylene, polyethylene and polyacetal.

**SERIES**

**E93**

**curve**



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