

Conveyor belts in waste sorting & treatment plants.



Multi-use belts, for working in adverse conditions:

High mechanical resistance to tearing and abrasion.

Excellent performance with chemical aggression from mineral oils, soaps, solvents, organic components and more..



Solid waste (plastic, cardboard, glass, metal, etc.).

DRAGO belts

- Identical structure and mechanical specifications to the ESPOT series.
- Designed for flat or troughed roller conveyors (flexible weft).
- Dimensional stability, reduced stretching and easy tracking.
- Low wear, highly resistant to abrasion.
- Formulated to resist mineral oils and chemical products in general.



BREDA & KERAM belts

- Conveyors with continuous or roller beds.
- High transverse rigidity, the belts remain completely flat on the conveyor.
- Light belts with excellent slide coefficient on the support bench, permitting the use of conveyors with lighter structures, smaller pulley diameters and less powerful motors with less energy consumption.
- Highly resistant to cuts, abrasion and tears. Versions with polyurethane covers for more demanding areas/processes.
- Excellent chemical resistance to all types of liquid waste found in numerous recycled plastic and metal containers (detergents, oil, etc.).
- Widely used belts on manual separation benches, magnetic separators and visual separators. They normally last an average of three times longer than generic belts.





Organic Waste

ESPOT belts

- Designed for flat or troughed roller conveyors (flexible weft).
- Polyester fabrics, resistance to moisture and tearing, protected and covered by thick PVC covers. Good resistance to abrasion.
- Good dimensional stability, reduced stretching and easy tracking.
- Chemical resistance to organic waste (vegetable oils, animal fats, acid or alkaline solutions).



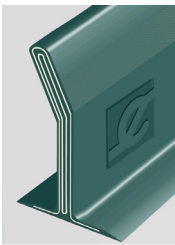
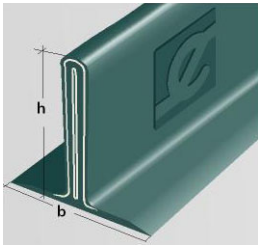
Straight and inclined reinforced profiles.

- Especially designed for hard working conditions. Highly resistant to impact on receiving and conveying waste.
- They increase transverse rigidity of the belt, producing greater stability on the conveyor.
- They have the same technical specifications as the belt.
- With fusion or high-frequency welding, they offer a perfect joint to the belt, greater resistance to fatigue and flexibility.



Profile	Dimensions		Transverse attachment		Length mm	Colour
	b mm	h mm	Minimum pitch mm	Minimum diam. mm		
NRR30	50	50	70	120	2000 mm strips	Blue 06, White and Green 00
NRR50		50				
NRR70		70				
NRR100		100				
NIR070		68				
NIR100		97				

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





Light thermoplastic belt: alternative to rubber belts.

Classic rubber belts are less flexible and heavier than PVC belts. Consequently they need more robust and expensive conveyors, with larger pulley diameters and rollers, as well as more powerful motors and higher energy consumption.

Conversely, PVC belts match the mechanical specifications of rubber belts in working load, resistance to tearing, low stretching, etc., while offering resistance to chemical and organic products.

However, the main problem with rubber belts is that whatever the conveyed product, **the cleats come off easily**, with subsequent stoppages of the collection line.



Report: Waste classification centre in the south of France*:

Application: primary separation

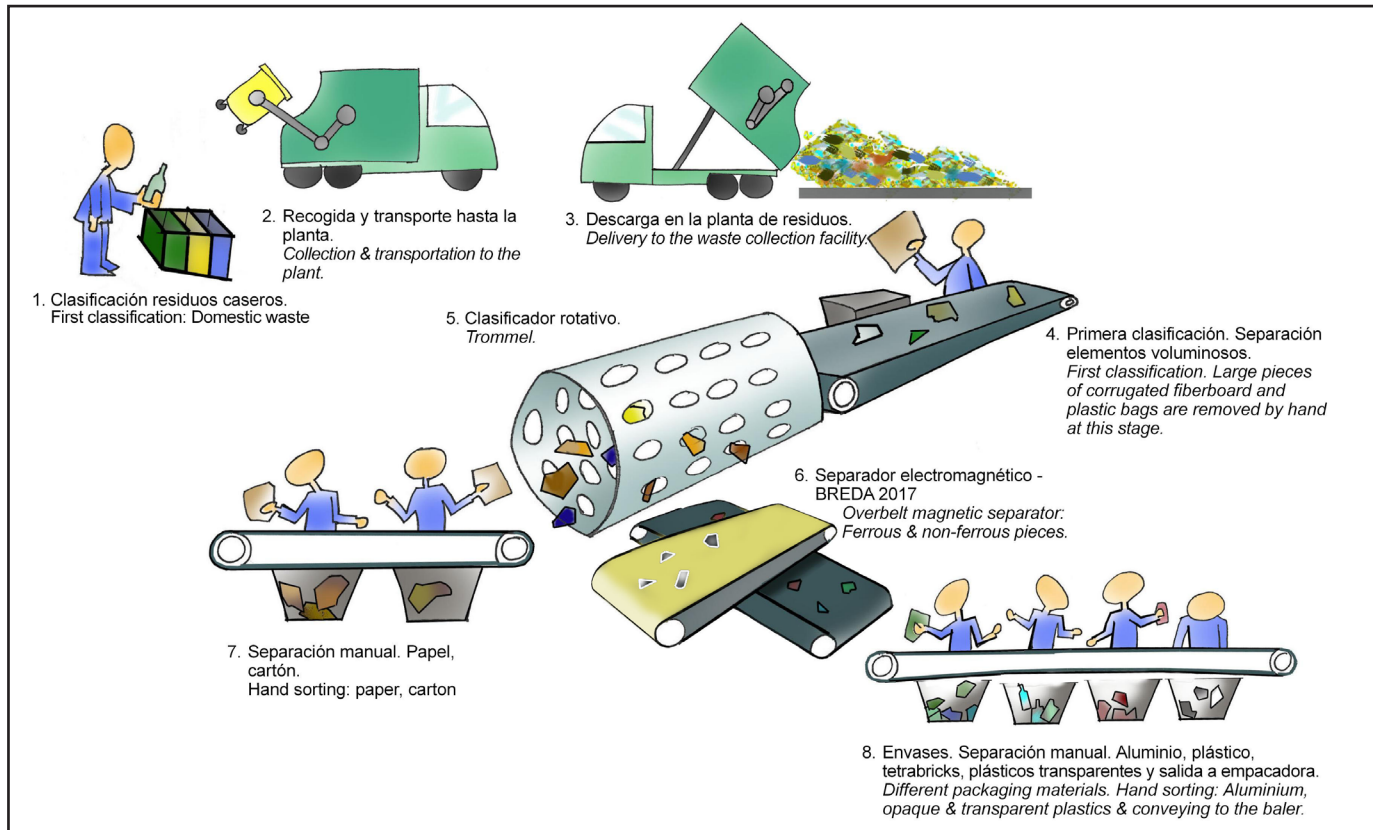
Belt type, dimensions and cleats.	**Number of breakdowns per year due to cleats coming unstucks.
Rubber C/C belt (type 400/3 2+00AA abrasion resist.) 1400mm x 27.8m + 45 Reinforced cleats (type TX Charbonnier) in lines of 3.	1 - 2 per year (duration: 6 hours)
BREDA 30CF 1400mm x 27.8m + 45 Reinforced cleats NRR50 in lines of 3.	0

*Approx. line capacity: 28 T/h.

**Same working and maintenance conditions.



Process diagram.



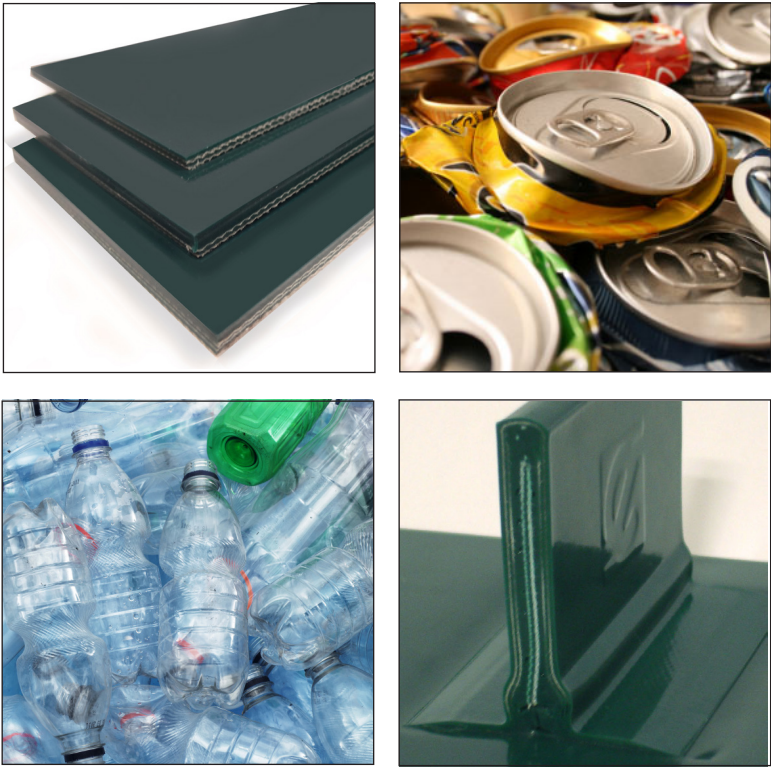
Some examples of **esbelt** belts in different applications:



- **Initial waste recovery sorting:**
BREDA 30CF type with reinforced profiles.
- **Transfer of industrial and household waste:**
type DRAGO 30AR / 30CR flexible weft.
- **Metal / sharp waste sorting:**
KERAM 40RF.
- **Sorting Rooms:**
Smaller conveyors, pulley diameters between approx. 80 and 120 mm.
- **Primary Separation:**
BREDA 30CF + reinforced profiles = pulley diameter 120 mm.
Lighter conveyor and much lighter support structure, therefore more economical.
- **Magnetic Separators:**
BREDA 2017. Thinner belt than rubber. Better transfer of the magnetic charge and much more resistant to abrasion.
- **Visual Separators for materials from the plastic container***
Black-Matt BREDA 2135. Facilitates identification, good guidance and centring and high stability, keeping the belt completely flat.
**Bear in mind that these belts are not suitable for applications in areas with heavy impacts from materials such as cement or metal.*



Why choose esbelt belts + cleats?



ADVANTAGES

Wide range of PVC and PU belts to accurately meet your needs.

Excellent resistance to chemical and mechanical harm (abrasion, cuts, etc.).

Belts with a solid structure but lighter than traditional rubber.

More flexible, smaller pulley diameters needed for the belt to operate.

Reinforced cleats welded to the belt by high frequency; they do not detach and offer high resistance to impact and tearing.

BENEFITS



Solution to different needs in each application and product.



Longer life expectancy. Our belts last 2 to 5 years (50% more than rubber under identical conditions)



Lower energy consumption in the process.



Lighter and more economical conveyors.



Fewer or no stoppage times. In rubber belts, **the cleats often come off easily.**



esbelt main belts in recycling process.

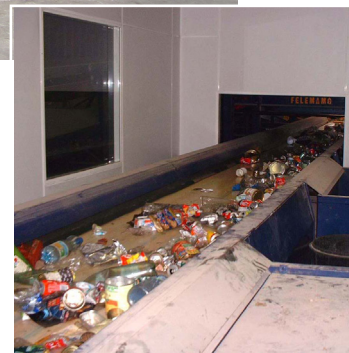
Belt type	Top cover				Bottom cover				Special characteristics	Constant Temperature °C	Fabrics		Belt thickness mm	Belt weight Kg/m2	at 20°C		Working load at 1% elong. N/mm	Max. roll width mm
	Material	Colour	Thickness mm	Finish	Material	Colour	Thickness mm	Finish			N° of plies	Weft			A Ø mm	B Ø mm		
BREDA 20CF	PVC	Green 00	1,0	Smooth		Natural		Fabric	☉ ▼ □	-5 +80	2	Rigid	2,90	3,50	55	75	15	3000
BREDA 22CF	PVC	Green 00	2,0	Smooth		Natural		Fabric	☉ ▼ □ ■	-5 +80	2	Rigid	4,00	4,80	80	100	17	3000
BREDA 30CF	PVC	Green 00	2,0	Smooth		Natural		Fabric	☉ ▼ □ ■	-5 +80	3	Rigid	4,90	5,80	120	150	22	3000

Belt type	Top cover				Bottom cover				Special characteristics	Constant Temperature °C	Fabrics		Belt thickness mm	Belt weight Kg/m2	at 20°C		Working load at 1% elong. N/mm	Max. roll width mm
	Material	Colour	Thickness mm	Finish	Material	Colour	Thickness mm	Finish			N° of plies	Weft			A Ø mm	B Ø mm		
DRAGO 20CC	PVC	Green 00	1,0	Smooth	PVC	Green 00	1,0	Smooth	☉ ▼ □ ☉	-15 +80	2	Flexible	4.10	5.10	140	140	20	2000
DRAGO 30CC	PVC	Green 00	2,0	Smooth	PVC	Green 00	1,0	Smooth	☉ ▼ □ ■ ☉	-15 +80	3	Flexible	6.20	7.70	200	250	30	2000
DRAGO 40CC	PVC	Green 00	2,0	Smooth	PVC	Green 00	1,0	Smooth	☉ ▼ □ ■ ☉	-15 +80	4	Flexible	7.40	9.20	300	350	35	2000

Belt type	Top cover				Bottom cover				Special characteristics	Constant Temperature °C	Fabrics		Belt thickness mm	Belt weight Kg/m2	at 20°C		Working load at 1% elong. N/mm	Max. roll width mm
	Material	Colour	Thickness mm	Finish	Material	Colour	Thickness mm	Finish			N° of plies	Weft			A Ø mm	B Ø mm		
ESPOT 20CC	PVC	White	1	Smooth	PVC	White	1,0	Smooth	☉ FDA EU ☉ ☉	-15 +80	2	Flexible	4.10	5.00	140	140	20	2000
ESPOT 30CC	PVC	White	2	Smooth	PVC	White	1,0	Smooth	☉ FDA EU ☉ ☉	-15 +80	3	Flexible	6.20	7.70	200	250	30	2000
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KERAM 40RF	PVC	Black 03	0,10	Impregn		Natural		Fabric	☉ ▼ ■ SW	-5 +80	2	Rigid	4.00	4.20	80	100	22	3000





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Esbelt Group companies:

Esbelt, S.A.

Provença, 385
08025 Barcelona
Spain
Tel. +34-93 207 33 11
Fax + 34-93 207 13 63
www.esbelt.com
spain@esbelt.com

Esbelt GmbH

Habichtweg 2
41468 Neuss
Germany
Tel. +49-2131 9203-0
Fax +49-2131 9203-33
www.esbelt.de
info@esbelt.de

Esbelt SAS

Parc d'activités de Taure
31880 La Salvétat St-Gilles
France
Tel. +33-5 61 06 89 10
Fax +33-5 61 06 89 11
www.esbelt.fr
esbelt@esbelt.fr

Esbelt Trading Inc.

7 Winter Forest Court
O'Fallon, MO 63366
USA
Tel. +1-636 294 2267
Fax +1-636 294 2268
www.esbelt.us
esbelt@esbelt.us

Esbelt ApS

Agerhatten 16B - Indgang 2
DK-5220 Odense SØ
Denmark
Tel. +45 70 20 62 09
Fax +45 66 12 62 09
www.esbelt.dk
esbelt@esbelt.dk