

## Conveyor belts in airports



The **esbelt** baggage handling belting range is manufactured to meet the most stringent regulations in airport safety and operation, incorporating: low noise polyester fabric, high abrasion resistant PVC, certified antistatic to ISO 284 and flame retardant in accordance with ISO 340.





Constant growth in Worldwide air traffic has compelled large and small airports to improve and enlarge their infrastructures. People and baggage must be handled safely and reliably, overcoming longer distances in shorter times.

Integrated and modern high-speed Baggage Handling Systems ensure the proper tracking and movement of passengers luggage and parcels.

Esbelt, as an experienced manufacturer of conveyor belts for materials handling, through extensive R+D has developed an efficient and proven airport belting range that meets the special requirements of all processes involved in the conveyance of baggage, from check-in, to the carousel at the destination.



#### CHECK-IN

Bags are checked for weight, tagged and logged into electronic tracking system. Rhomboidal profile belt; highly antistatic with excellent grip, prevents wheeled bag from sliding. Strong yet flexible carcass is adaptable to small pulley diameters.

#### RECEIVING/COLLECTOR CONVEYORS

Collect luggage from a row of check-in conveyors. These belts are almost invariably loaded from the side. A belt with great transversal rigidity, low friction top side and high load capacity, offers excellent tracking and stability. Crucial belt in any airport and is normally the longest belt in the installation.

#### DESCENDING/INCLINED CONVEYORS

Bags are fed into the system to be conveyed to the correct loading point or on arrival back up into the baggage carousels. Patterned belts with longitudinal groove or supergrip (rough top) structure ensure the friction/adherence, to keep the bags under control on both incline and decline conveyors.

#### CURVED (POWER TURN) CONVEYORS

Conveyors that change the direction of the flow within the system. Perfectly shaped curved belts with excellent flexibility and a strong, stable structure designed for overcome bending stresses from all directions. Reliable transference without changing or altering the orientation of the luggage.

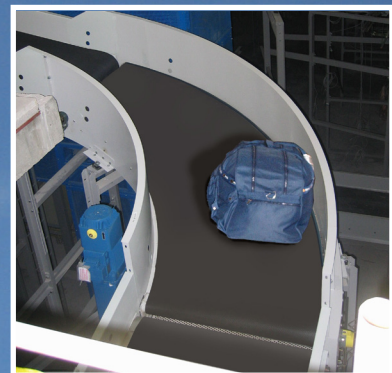
#### MERGE CONVEYORS (INJECTING BELT)

Conveyors transferring bags onto a main line or to a specific baggage carousel. Transfer from one belt to another is not completely perpendicular, but in a 30° - 45° angle bending. These belts have to be highly flexible to meet these requirements.

#### DIVERTER ARM

Perpendicularly assembled powered conveyor arm that diverts the baggage from the main belt to other secondary belts or a loading station. A belt with high pulling power is required, with V-guides to support the side guide.

The belts installed under the diverters or pushers must be very slippery, facilitating the movement of baggage on the cover and preventing accumulations or squashing. They must also be highly transversely rigid, so that they stay completely flat (from one side to the other).







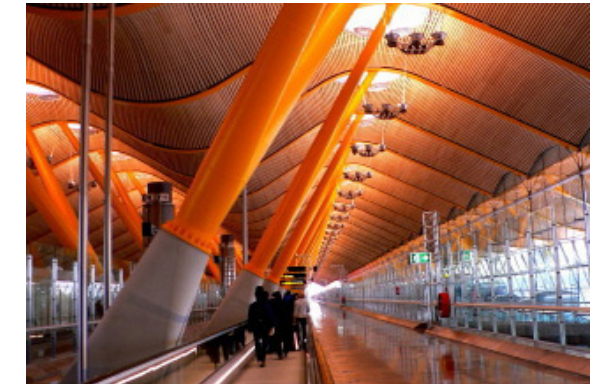
## 100% ISO compliance

**esbelt** belts in airports are tested and meet all international norms required by the airport sector authorities:

- Flame retardant ISO 340\*
- Antistatic ISO 284
- Low noise / silent fabric
- Excellent longitudinal flexibility
- Special bottom cover LFR impregnation

\* Esbelt produces ISO 340 (Flame Retardant ) compliant belts which are 100% compliant (Top cover, internal and Bottom side) providing a total solution Airport applications. In cases where only cover side is required to be Flame retardant (thus is not ISO 340 compliant) we can, on request, manufacture belting specific to this need.

### BENEFITS OF LFR IMPREGNATION (Low Friction Resin):



- Excellent anti-adherent finish, with a low friction coefficient between the belt and support bed, which means lower power requirements to move the belt and hence energy savings.
- Longer lasting, thanks to high resistance to external factors such as moisture, water or chemical agents.
- Easy maintenance with less dirt sticking to the internal side of the belt and hence less of belt misalignment due to the build-up of dirt between the belt and pulleys.

	Check-in. Receiver and scales	Check-in. Injecting belts	Transferring. Inclined conveyors	Collectors (receiving from the check-in)	Curved belts	Separating baggage	Linear conveyors	Mergers	Diversers	X-ray control	Loading baggage onto the plane
FEBOR 15NF	●	●				●	●	●		●	
FEBOR 19NF				●				●			
FEBOR 21AF					●						
FEBOR 21NF					●						
FEBOR 22FF				●				●			
ASTER 15QF	●		●			●			●		●
ASTER 15G2F	●		●			●			●		●
ASTER 15W1F	●	●	●						●		●

**esbelt** airport belts are succesfully working, in most Spanish airports. Among them, we can refer to Albacete, Alguaire, Alicante, Asturias, Barcelona, Bilbao, Castellon, Canary Islands (Fuerteventura, Hierro, Lanzarote, Las Palmas de Gran Canaria, Tenerife Norte, Tenerife Sur), Ciudad Real, Girona, Jerez, La Coruña, Madrid, Malaga, Menorca, Ibiza, Palma de Majorca, Pamplona, Reus (Tarragona), San Sebastian, Santiago, Seville, Valencia, Valladolid, Vigo (Pontevedra), Villanubla (Valladolid), World Trade Center Barcelona - Sea port, etc.

At an international scope, we can also point out the airports in Andijan, Antalya, Athens, Auckland, Bâle-Mulhouse, Bandung, Bangkok, Biarritz, Bombay, Brisbane, Bukhara, Cairo, Calcutta, Cape Verde, Cape Town, Casablanca, Cayo Coco, Cayo Largo del Sur, Chennai, Cienfuegos, CKS Taipei, Curitiba, Davao, Denpasar (Bali), Donmung, Dubai, Düsseldorf, Ezeiza, Entebbe, Faro, Fergana, Funchal, Glasgow, Ho Chi Minh, Holguín, Horta, Jakarta, Johannesburg, Kaoshung, Katowice, Kuala Lumpur, La Habana, Lisbon, Lodz, Luxor, Manila, Macao, Makassar, Marrakech, Marseille, Mauritius, Melbourne, Múnic, Namangan, Natal, Navoyi, Oporto, Point Salines, Porto Santo, Roissy, Rio de Janeiro, Santa María -Azores, Samarkand, Santiago de Cuba, Shengyang, Tel Aviv, Termez, Toulouse, Tunis, Urganch, Varadero, Xorazm, etc.



General characteristics of esbelt belts in airports:



Type	Top cover					Bottom cover			Special characteristics	Constant (intermittent) 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	Hardness °ShA	Colour	Thickness mm	Finish	Material	Colour	Thickness mm			N° plies	Weft			A Ø mm	B Ø mm		
FEBOR 15NF	PVC	82	Black 01	0.50	Mat	LFR	Grey 00	0,10		-10 (-15) +80 (100)	2	Rigid	2.10	2,60	40	60	15	3000
FEBOR 19NF	PVC	82	Black 01	0,90	Mat	LFR	Grey 00	0,10		-10 (-15) +80 (100)	2	Rigid	2.50	3,10	40	60	17	3000
FEBOR 21AF	PVC	82	Black 01	0,80	Pattern A	LFR	Grey 00	0,10		-10 (-15) +80 (100)	2	Flexible	2,55	2,90	40	60	20	3000
FEBOR 21NF	PVC	82	Black 01	0.60	Mat	LFR	Grey 00	0,10		-10 (-15) +80 (100)	2	Flexible	2.40	2,90	40	60	20	3000
FEBOR 22FF	LFR	-	Grey 00	0.10	Impregn.	LFR	Grey 00	0,10		-10 (-15) +80 (100)	2	Rigid	2.40	2,85	60	60	14	3000
ASTER 15QF	PVC	55	Black 02	1.70	Pattern Q	LFR	Grey 00	0,10		-10 (-15) +80 (100)	2	Rigid	3.20	3,50	50	60	15	2-3000
ASTER 15G2F	PVC	55	Black 02	4.00	Pattern G2	LFR	Grey 00	0,10		-10 (-15) +80 (100)	2	Rigid	5.50	4,20	45	70	15	2000
ASTER 15W1F	PVC	65	Black 02	6.00	Pattern W1	LFR	Grey 00	0,10		-10 (-15) +80 (100)	2	Rigid	8.75	4,80	80	100	10	1250

Patterns



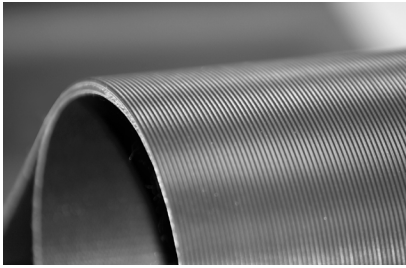
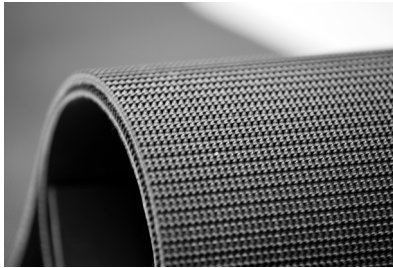
Type G2



Type Q



Type W1



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