siegling
belting

CONVEYOR BELTS FOR BAGGAGE HANDLING SYSTEMS

Siegling – total belting solutions

forbo
MOVEMENT SYSTEMS

BAGGAGE HANDLING
AT INTERNATIONAL AIRPORTS

Multiple airports worldwide already benefit from Forbo Movement Systems' conveyor belts when cargo and baggage need transporting.

There are good reasons why Forbo Movement Systems is a market leader when it comes to fitting out international airports with conveyor belts. Due to our global service network and experience of many large projects, we're the partner for OEMs and operators in terms of planning, construction and after-sales service.

Our product range is geared to the requirements of today's airports. It reflects the rising demands of increasing quantities of baggage and cargo. The latest example: Energy-saving conveyor belts (Amp Miser) save up to 50% of power requirements.

Our experience, uncompromising quality standards and results of ongoing research and development make our products frontrunners. Which is why our conveyor belts get baggage and cargo moving the world over.

Safely, reliably and efficiently.

siegling transilon
conveyor and processing belts

siegling transtex
conveyor belts

siegling prolink
modular belts

siegling proposition
timing belts

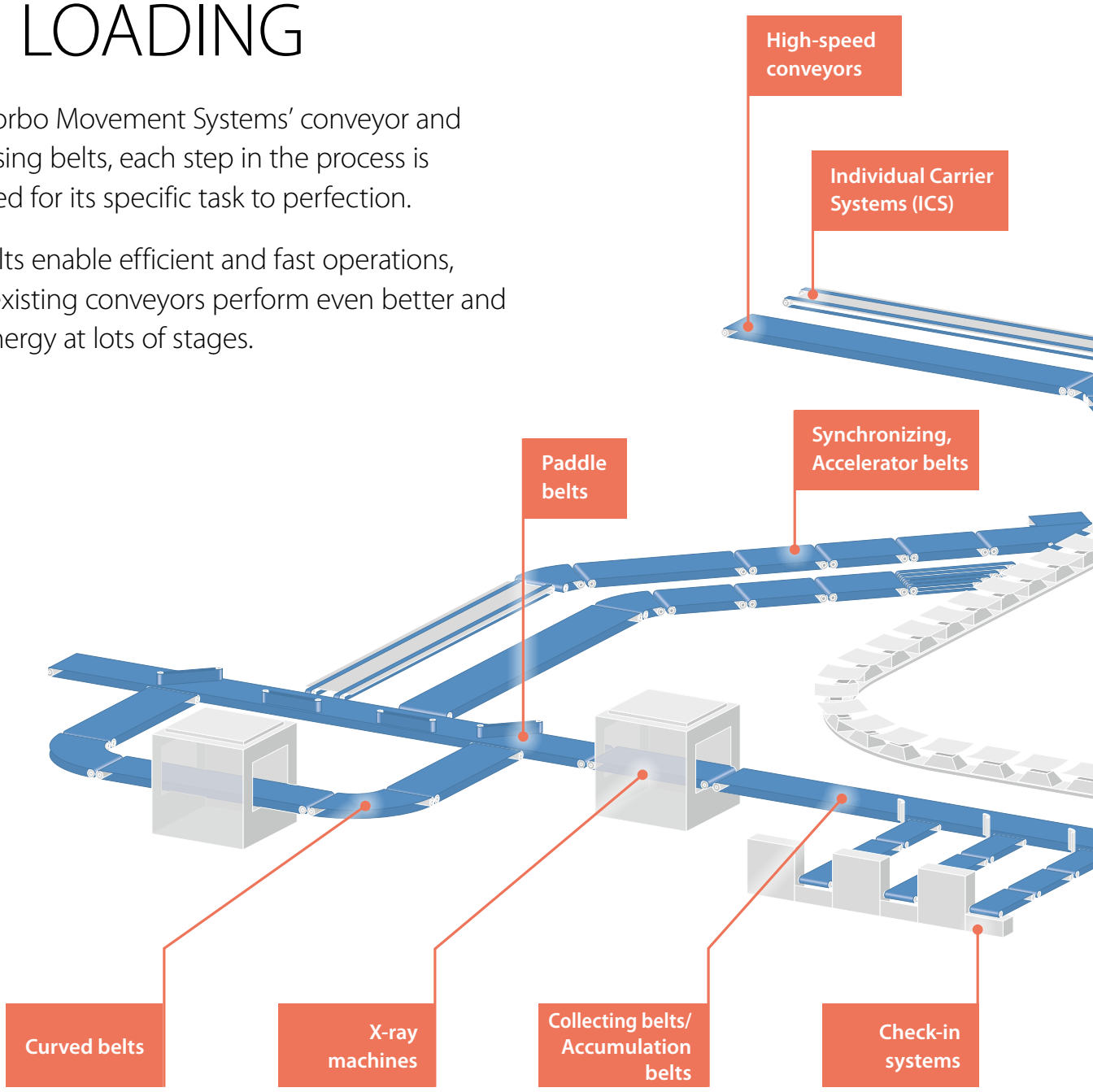
The advantages:

- Excellent track records worldwide for many years
- Conveyor belts that save energy and primary raw materials
- An extensive portfolio for the whole baggage handling process
- Excel in terms of precision, speed and durability
- Low noise belts to improve working conditions
- A one-stop shop

FROM CHECK-INS TO LOADING

With Forbo Movement Systems' conveyor and processing belts, each step in the process is prepared for its specific task to perfection.

Our belts enable efficient and fast operations, make existing conveyors perform even better and save energy at lots of stages.

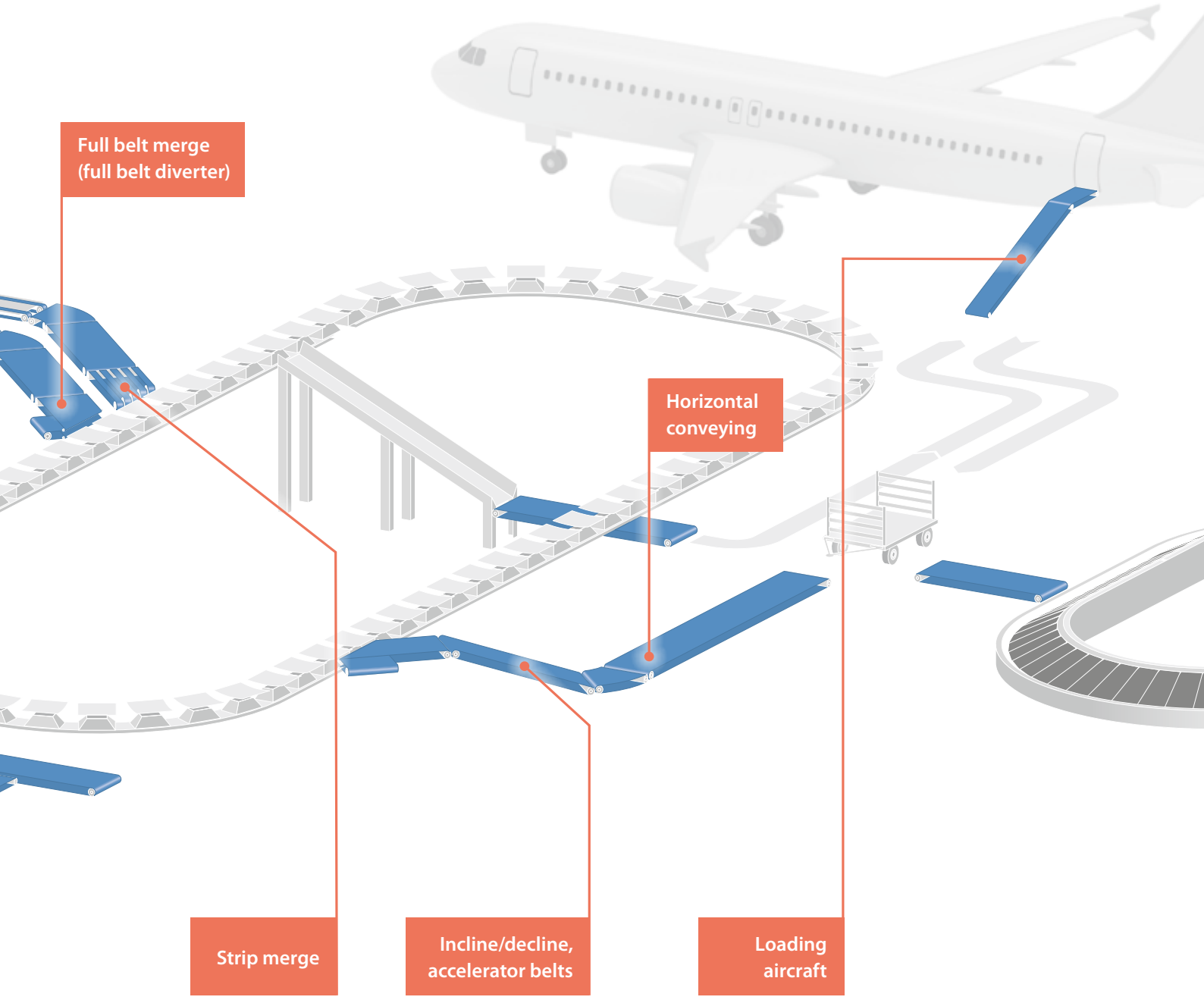


Reliable conveying due to a special fabric structure (distributing forces in the belt well).

High-quality image definition due to the belts' exceptional flatness, uniform splices and first-class coatings.

The belts are so flat and smooth that transferring items onto the conveyor from the sides is no problem.

Special surface patterns ensure good grip. Even difficult trolley cases are conveyed reliably.



Perfect transfer of items conveyed due to small return radii; short take-up ranges thanks to the belts' tight length tolerances.

Secure inclined conveying due to conveyor belts with patterns or lateral profiles.

Especially hard-wearing belts operate reliably even if the humidity and temperature fluctuate.

EFFECTIVE
IN TERMS OF SUSTAINABILITY

Committed to five key UN Sustainable Development Goals:

3 GOOD HEALTH AND WELL-BEING

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

17 PARTNERSHIPS FOR THE GOALS

SUSTAINABLE DEVELOPMENT GOALS

Amp Miser
Energy-saving
conveyor belts

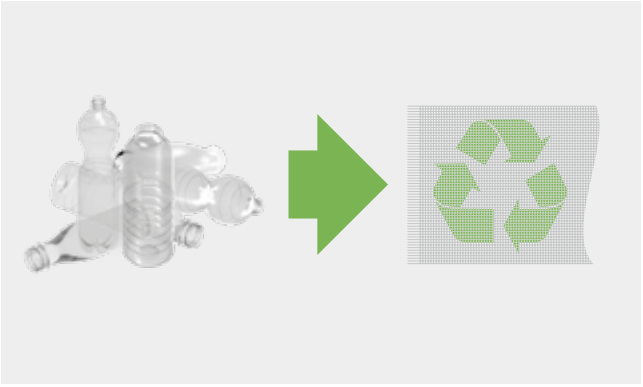
Forbo's Amp Miser conveyor belts can verifiably make energy savings of up to 50%. Which makes Amp Miser the most energy-efficient conveyor belt in the industry. Numerous airports worldwide are already reaping the benefits of Amp Miser conveyor belts.

Their energy-saving potential has been certified by German inspection body TÜV Rheinland and presented with the Best of Industry Award 2023 in the best sustainability project category. The savings are particularly high and return on investment fast where large quantities of baggage are transported continuously and lots of conveyor belts are required. What's more, items of baggage can be conveyed more quickly.

The Amp Miser conveyor belts meet all standards. They are robust, flame retardant, antistatic, low noise and operate in the temperature range required. Due to its low friction coefficient, Amp Miser enables smaller gear motors, longer conveyor belts and a lower number of motors. The Amp Miser belts' drive creates less build up of heat on motors and bearings, so conveyors last longer.

For more detailed information, go to:
www.forbo.com/movement

Transilon ECOFIBER
Sustainable use of materials
and cost-efficient operation



Made of fully recycled polyester (rPET), ECOFIBER tension members play a quality-inspected role in using resource friendly materials. In conjunction with the Amp Miser conveyor belts, energy and running costs have been shown to be lower.

With rPET in the tension members, ECOFIBER belts sustainably save primary raw materials. In the same quality, compared with the primary material, yarns made of recycled polyester (rPET) also save energy during their production, therefore cutting carbon emissions. These yarns are turned into first-class tension member fabric for fabric-based conveyor belts.

As an Amp Miser version, Transilon ECOFIBER also saves up to 50% of power requirements in baggage conveyors. Three aspects that help you to achieve your sustainability objectives.

For more detailed information, go to:
www.forbo.com/movement

TÜV Rheinland certified

TÜV certified

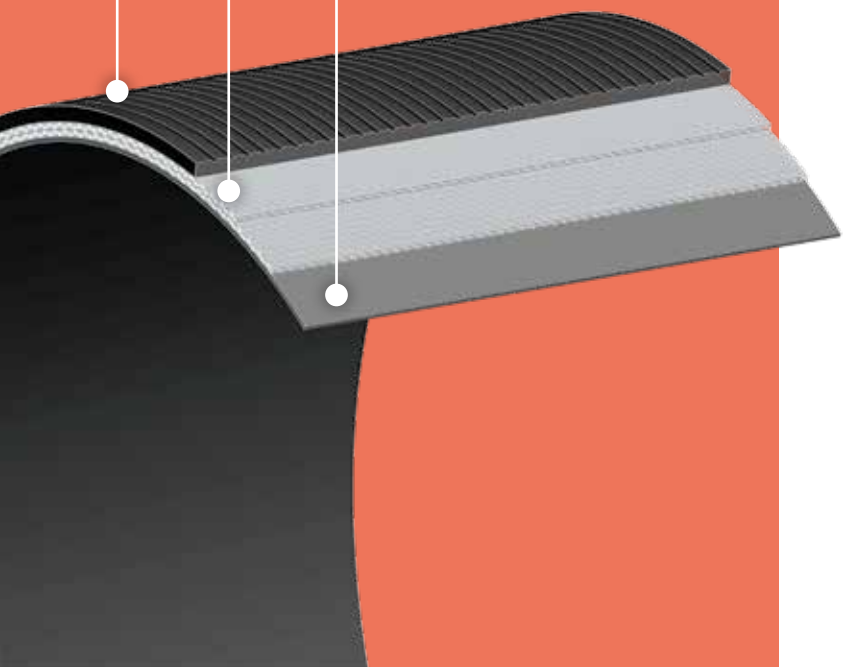
Independent German inspection body TÜV Rheinland tested the characteristics of Amp Miser on a range of belt types. The accuracy of the online calculator, absolute carbon dioxide savings and savings potential were confirmed and certified in the process. You can calculate the savings potential online for your conveyor now at **www.ampmiser.com** with no obligation.

Product Structure
conveyor and processing belts

Top face | Various coating materials, thicknesses and patterns determine grip, chemical, physiological and mechanical properties of the belt.

Tension members | A diverse range of special fabrics has a big impact on a belt's suitability for specific applications. The fabric design governs belt tracking and electrostatic characteristics, force/elongation behavior, flatness and a belt's ability to handle knife edges and curves.

Underside | The design of the underside determines the noise emission, wear, and suitability for sliding or rolling support of the belt.



Use B_Rex to find the right belt reliably

For conveyors to perform well, the belts chosen and their physical parameters should match the design of the conveyor. Our B_Rex calculation program lets you:

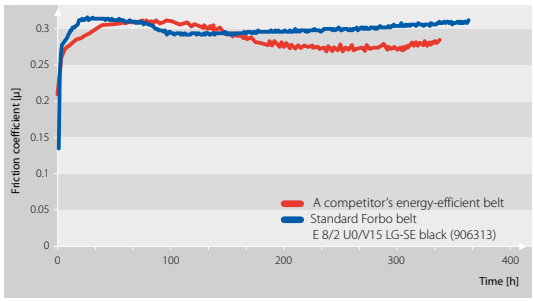
- select the right belts for existing conveyors and
- design conveyors so that previously specified belt types can be used.

The program shows conveyors and drives and any changes to them in the form of symbols, therefore simulating the way any conveyor interacts with any belt in our product range.

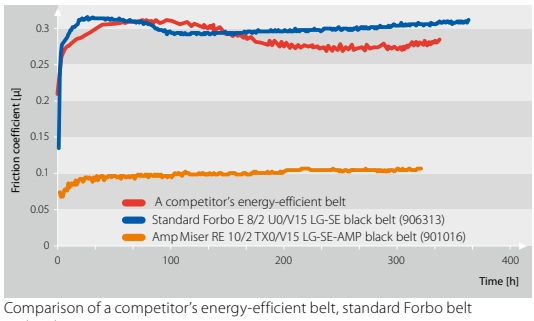
You can obtain the calculation program with instructions in a PDF file and information on the articles in our product range after registering free of charge at:
www.forbo.com/movement > E-Tools

SAVE ENERGY
OPERATING BAGGAGE HANDLING SYSTEMS

Our whitepaper, entitled “Save Energy Operating Baggage Handling Systems” looks at energy consumption in conveyor belts.



Comparison of a competitor’s energy-efficient belt and standard Forbo belt.



Comparison of a competitor’s energy-efficient belt, standard Forbo belt and Forbo Amp Miser RE 10/2 TX0/V15 LG-SE-AMP.

Measurements in the lab and on baggage handling systems in the real world prove: Amp Miser belts produce 50% less friction than comparable energy-saving belts in the industry. These comparable belts have the same high friction as our standard belts without Amp Miser technology. Our Amp Miser belts can achieve energy savings of over 40% in the whole conveyor. Knock-on effects such as longer belt lives and longer conveyors, but where the power transmission is identical, can also cut the costs of the conveyor overall.

For more detailed information, see our whitepaper.
Which you can find here: **www.forbo.com/movement > Downloads > whitepaper**

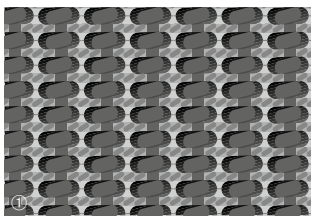
Forbo is a member of GATE and the IABSC

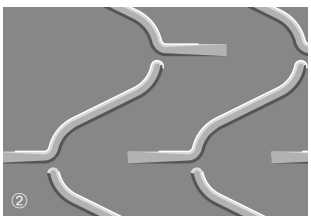
Forbo Movement Systems is a longstanding member of the GATE Alliance, the airport industry’s leading network. We collaborate with them to develop the concepts and technologies of tomorrow, particularly in terms of sustainability and energy efficiency.
WWW.GATE-ALLIANCE.COM

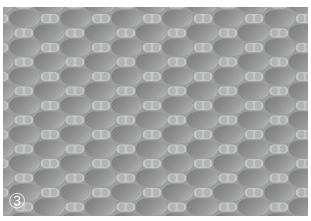
As a member of the International Association of Baggage System Companies (IABSC), Forbo Movement Systems campaigns for consistent improvement of standards and innovations in the baggage handling industry.
IABSC.ORG

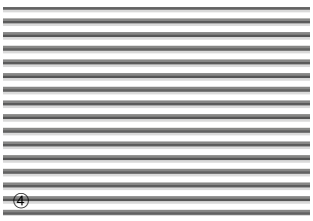
Product range Airports

	Article number	Total thickness approx. [mm]	Weight approx. [kg/m²]	Effective pull at 1% elongation ($k_{1\%}$ relaxed) [N/mm width]*	d_{min} counter-bend / d_{min} bend / r_{min} knife approx. [mm]**	Check-in systems	Collecting belts/ Accumulation belts	X-ray machines	Paddle belts	High-speed conveyors	Curved belts	Horizontal conveying (metering)	Drag band conveyors	Inclined conveying, Synchronizing, Accelerator belts
Siegling Transilon														
E 8/2 U0/R15 LG-SE black	906706	3.20	3.00	7.50	60/–/–					●			●	●
E 8/2 U0/U10 LG-SE black	904539	2.10	2.00	5.00	40/–/–					●			●	●
E 8/2 U0/U10S LG-SE black	906650	2.20	2.40	7.75	40/30/–					●			●	●
E 8/2 U0/U2 MT-C-SE black	906391	1.20	1.40	5.00	14/8/–						●	●		
E 8/2 U0/U2 MT-SE black	906399	1.45	1.55	6.50	24/14/–							●		
E 8/2 U0/U2 STR black	907207	1.60	1.75	0.00	24/–/–			●						
E 8/2 U0/U2 STR-HC black	900154	1.60	1.80	6.00	24/24/–			●						
E 8/2 U0/V/U2H MT-SE black	906401	1.65	2.00	7.50	50/40/–		●					●		
E 8/2 U0/V10H M-SE black	906538	3.10	3.60	7.50	60/–/–		●					●		
E 8/2 U0/V15 LG-FR black	906434	3.10	3.40	7.50	40/–/–									●
E 8/2 U0/V15 LG-SE black	906313	3.10	3.40	7.50	60/30/–					●			●	●
E 8/2 U0/V20 AR-SE black	999532	4.90	4.20	6.00	60/–/–				●					●
E 8/2 U0/V5H MT-FR black	906433	2.20	2.60	8.00	60/60/60		●					●		
E 8/2 U0/V5H MT-SE black	999967	2.25	2.70	7.00	50/30/–		●					●		
E 8/2 U0/V65 R65-SE black	909160	8.00	5.70	6.50	120/60/–	●			●					
E 8/2 U0/V80 R80-SE black	996121	8.20	4.70	6.00	125/90/–	●			●					
E 8/2 U0/V/R15 LG-SE black	901004	3.10	3.50	5.75	60/30/–					●		●		
E 10/2 TX0/V15 LG-SE-AMP black	906810	2.70	2.90	9.00	40/30/–					●				●
E 10/2 TX0/V5H MT-SE-AMP black	906809	2.20	2.50	9.00	40/30/–		●			●		●		
E 12/2 0/U2 MT-C-SE black	906479	1.85	1.90	4.50	40/–/–						●			
E 12/2 0/U3 GSTR-C-SE black	906718	2.10	1.90	4.50	40/30/–						●			
E 12/2 0/V3 GSTR-C-SE anthracite	906784	2.10	2.35	3.25	30/–/–						●			
E 12/2 0/V6 MT-C-SE black	906882	2.10	2.50	3.00	40/30/–		●				●			
E 12/2 TX0/V1 M-FR-AMP black	907230	2.95	3.30	6.00	60/–/–		●			●		●		
E 12/2 TX0/V10 LG-M-FR-AMP black	907229	3.90	4.50	6.00	60/–/–					●				●
E 12/2 TX0/V2 MT-M-FR-AMP black	907224	3.00	3.60	6.00	60/–/–					●		●		
E 12/2 U0/V/U0 SE silver grey	999903	2.00	2.30	10.50	60/–/–		●					●		
E 12/2 U0/V10 STR-SE black	900323	3.10	3.80	10.00	60/40/–							●		
E 12/2 U0/V5 MT-LT black	909054	2.50	3.00	10.00	60/–/–							●		
E 12/2 U0/V5 STR-C-SE black	999856	2.50	3.00	3.00	60/–/–						●			
E 12/2 U0/V6 GSTR-C-SE black	906495	2.65	2.70	3.50	30/–/–						●			
E 12/2 U0/V7 SE black	909138	2.80	3.50	10.00	60/–/–							●		
E 12/2 U0/V7H MT-SE black	909169	2.80	3.50	10.00	90/–/–		●					●		
E 12/3 TX0/TX0 FR-AMP gray	907206	3.80	4.60	9.00	60/–/–		●			●		●		
E 20/3 0/V/0 SE gray	906734	3.00	3.50	17.00	125/–/–		●					●	●	
EL 0/V10 LG-SE black	906796	2.25	2.40	0.20	24/–/–							●		●
EL 0/V10H MT-SE black	906848	2.20	2.40	0.30	30/–/–							●		
NOVO 40 HC-SE black	906236	4.00	2.60	7.50	90/60/–		●					●		
NOVO 60 HC-SE black	906237	5.50	3.60	8.00	125/90/–		●					●		
RE 10/2 TX0/V5H MT-SE-AMP black	901015	2.20	2.60	8.50	40/36/–		●		●	●		●		●
RE 10/2 TX0/V15 LG-SE-AMP black	901016	2.70	2.90	8.50	40/36/–					●		●		●









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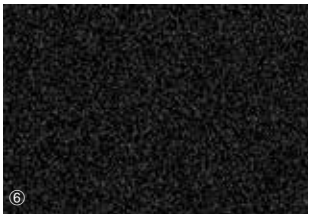

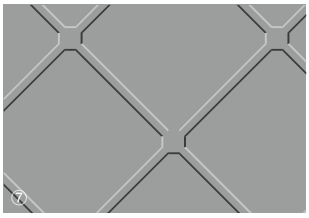

	Strip merge	Full belt merge (full belt diverter)	Loading aircraft	Energy saving belts Amp Miser	Available in AP = Asia Pacific, AA = America, EU = Europe, GL = globally***
	●				EU, AP
	●				AA
	●				GL
		●			EU, AP
					EU, AA
					GL
					GL
	●				EU
					GL
	●				AA
	●				EU, AP
					EU, AP
					AA
					EU, AP
					EU, AP
					GL
					EU, AA
	●			●	EU, AP
				●	EU, AP
		●			AA
		●			EU, AP
					EU, AP
					EU
				●	AA
				●	AA
				●	AA
					GL
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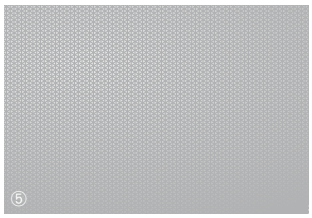
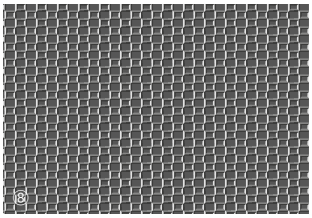
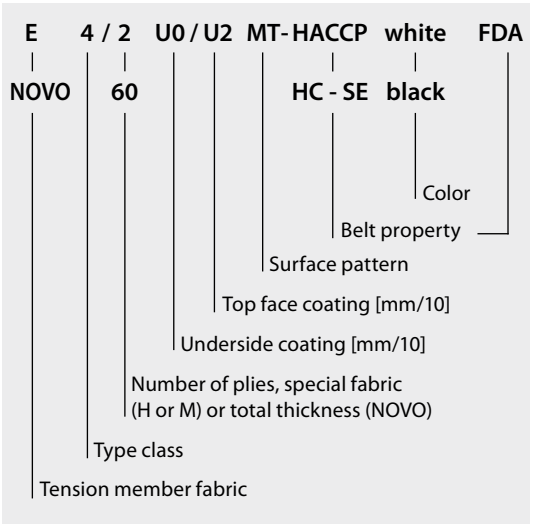
					AP
					AA
					AA
	●				AP
					AP
				●	EU, AA
					EU, AP
	●				GL
					GL
					EU
					EU
				●	EU, AA
				●	EU, AA





siegling transilon
conveyor and processing belts

Type code



Legend

* Established in line with ISO 21181:2005

** • Minimum drum diameter d_{min} with counter-bending (top face touches drum)
• Minimum drum diameter d_{min} with bending (driving face touches drum)
• Minimum radius r_{min} of a fixed knife edge (rX) or minimum diameter d_{min} of a rolling knife edge (dX) (driving face touches knife edge)
Any values that are missing on request. The smallest permissible drum diameters were established at room temperature with z-splices and counter bending and do not apply to conveyor belts with mechanical fasteners. Lower temperatures, profiles and side walls can require larger drum diameters. For more details, see our Technical Information 2 brochure (ref. no. 318)

*** Other regions on request

Tension member fabrics

E	=	Polyester
EL	=	Polyester (elastic)
NOVO	=	Polyester felt
RE	=	Recycled polyester

Design

H	=	HighTech-fabric

Coatings

0	=	Fabric uncoated
R	=	High Grip
TX0	=	Texglide
U	=	Polyurethane
U…H	=	Polyurethane hard
U0	=	Polyurethane impregnation
V	=	Polyvinyl chloride
V…H	=	Polyvinyl chloride hard

Surface patterns

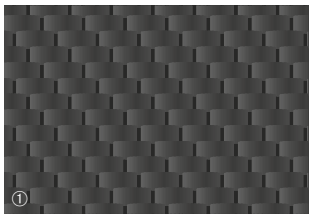
AR	=	Rough-top ①
CH	=	Check-in ②
GSTR	=	Coarse texture ③
LG	=	Longitudinal groove ④
MT	=	Matte ⑤
QS	=	Quarz sand ⑥
R	=	Large diamond ⑦
STR	=	Normal texture ⑧

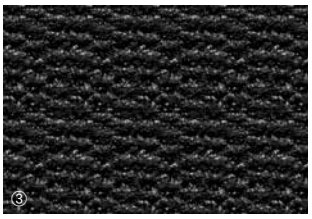
Belt properties

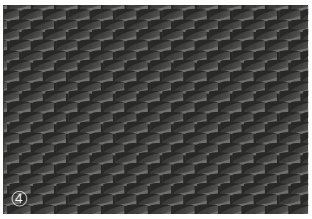
AMP	=	Amp Miser
C	=	Laterally flexible, suitable for curved belts
FR	=	Flame-retardant, ASTM D-378
HC	=	Highly-conductive
M	=	Particularly stiff laterally
S	=	Very low noise
SE	=	Flame-retardant, EN340

Product range Airports

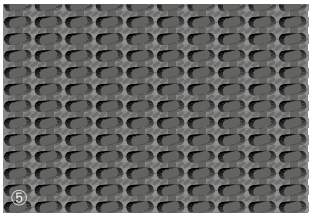
	Article number	Total thickness approx. [mm]	Weight approx. [kg/m²]	Effective pull at 1% elongation ($k_{1\%}$ relaxed) [N/mm width]*	d_{min} counter-bend / d_{min} bend / r_{min} knife approx. [mm]**	Check-in systems	Collecting belts/ Accumulation belts	X-ray machines	Paddle belts	High-speed conveyors	Curved belts	Horizontal conveying (metering)	Drag band conveyors	Inclined conveying, Synchronizing, Accelerator belts
Siegling Transtex														
PHR2-160 3/64LIxBB-NA black FR	908204	3.63	4.39	11.00	127/–/–					●		●		●
PHR2-160 MRTxBB-NA FR black	908205	3.48	3.91	11.00	127/89/–									●
PHR2-160 RTxBB-NA FR black	908206	6.86	6.35	10.00	152/127/–									●
PHR2-90MF BBxBB-NA black FR	908200	2.87	3.37	4.00	63.5/–/–		●					●		
PHR2-90MF GRADE II RTxBB black	908214	7.01	6.44	4.50	126/89/–									●
PHR2-90MF LIxBB-NA black FR	908201	3.58	4.30	8.00	126/89/–							●		●
PHR3-135MF BBxBB-NA black FR	908208	3.94	4.59	8.00	126/126/–		●					●		
PHR3-200TW BBxBB-NA black FR	908209	3.81	4.39	12.00	–/76.2/–		●					●		
PHR3-265TW BBxBB-NA black FR	908210	4.75	5.52	25.00	–/203/–		●					●		
PVC120 FxB-NA black FR	908011	2.79	2.44	7.50	38/–/–		●					●		
PVC120 RTxB-NA black FR	908004	6.35	4.88	8.50	63.5/51/–									●
PVC150 FxB-NA black FR	908015	3.30	3.42	7.00	51/–/–		●					●		
PVK100 CxFS-NA black FR	908101	3.30	3.91	11.00	63.5/38/–							●		
PVK100 FSxFS-NA black FR	908100	2.79	2.44	10.50	38/38/–		●					●		
PVK125 CxFS-NA black FR	908104	3.94	4.39	14.00	63.5/63.5/–							●		
PVK125 FSxFS-NA black FR	908103	3.68	3.42	10.00	38/38/–		●					●		
PVK125 MRTxFS-NA black FR	908105	4.83	4.88	14.00	51/38/–									●
PVK125 RTxFS-NA black FR	908106	7.62	6.35	11.00	63.5/–/–									●
PVK150 FSxFS-NA black FR	908125	4.57	4.44	10.00	63.5/51/–		●					●		
PVK200 FSxFS-NA black FR	908111	5.08	5.37	15.00	89/51/–		●					●		

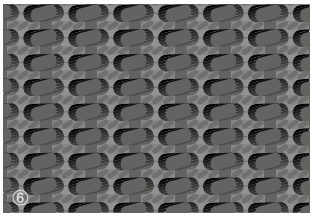






Please note: the values stated are nominal and can fluctuate in a belt whose width is a result of production processes. Our products are constantly adapted to market requirements. Consequently, changes in technical parameters can occasionally occur. **Therefore, please see the current product data sheets for specific information on designs and calculations.** These include details of further parameters.





	Strip merge	Full belt merge (full belt diverter)	Loading aircraft	Energy saving belts Amp Miser	Available in AP = Asia Pacific, AA = America, EU = Europe, GL = globally***
					AA
					AA
					AA
					AA
			●		EU, AA
			●		AA
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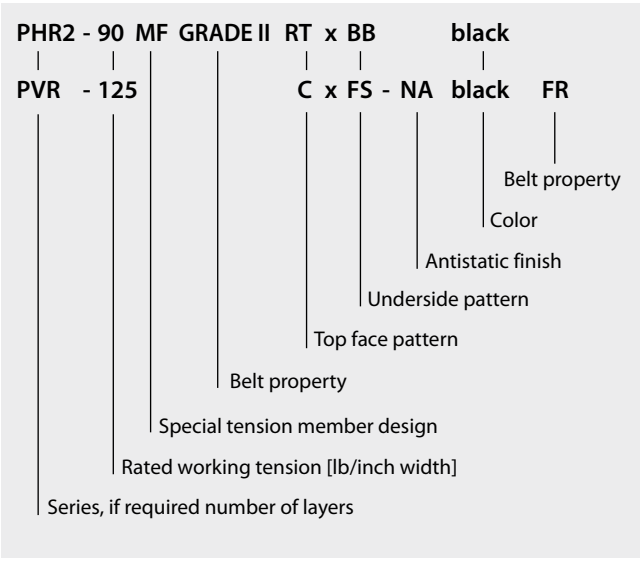
siegling transtex
conveyor belts

Type code



Legend

* Established in line with ISO 21181:2005

** • Minimum drum diameter d_{min} with counter-bending (top face touches drum)
• Minimum drum diameter d_{min} with bending (driving face touches drum)
• Minimum radius r_{min} of a fixed knife edge (rX) or minimum diameter d_{min} of a rolling knife edge (dX) (driving face touches knife edge)
Any values that are missing on request. The smallest permissible drum diameters were established at room temperature with z-splices and counter bending and do not apply to conveyor belts with mechanical fasteners. Lower temperatures, profiles and side walls can require larger drum diameters. For more details, see our Technical Information 2 brochure (ref. no. 318)

*** Other regions on request

Series

PHR = Package Handling Rubber (Rubber coating and/or rubber in the intermediate layer)
PVC = Interwoven PVC (Special PVC-impregnated fabric)
PVK = Package Handling PVC (Special PVC-impregnated fabric, reinforced version)

Special tension member designs

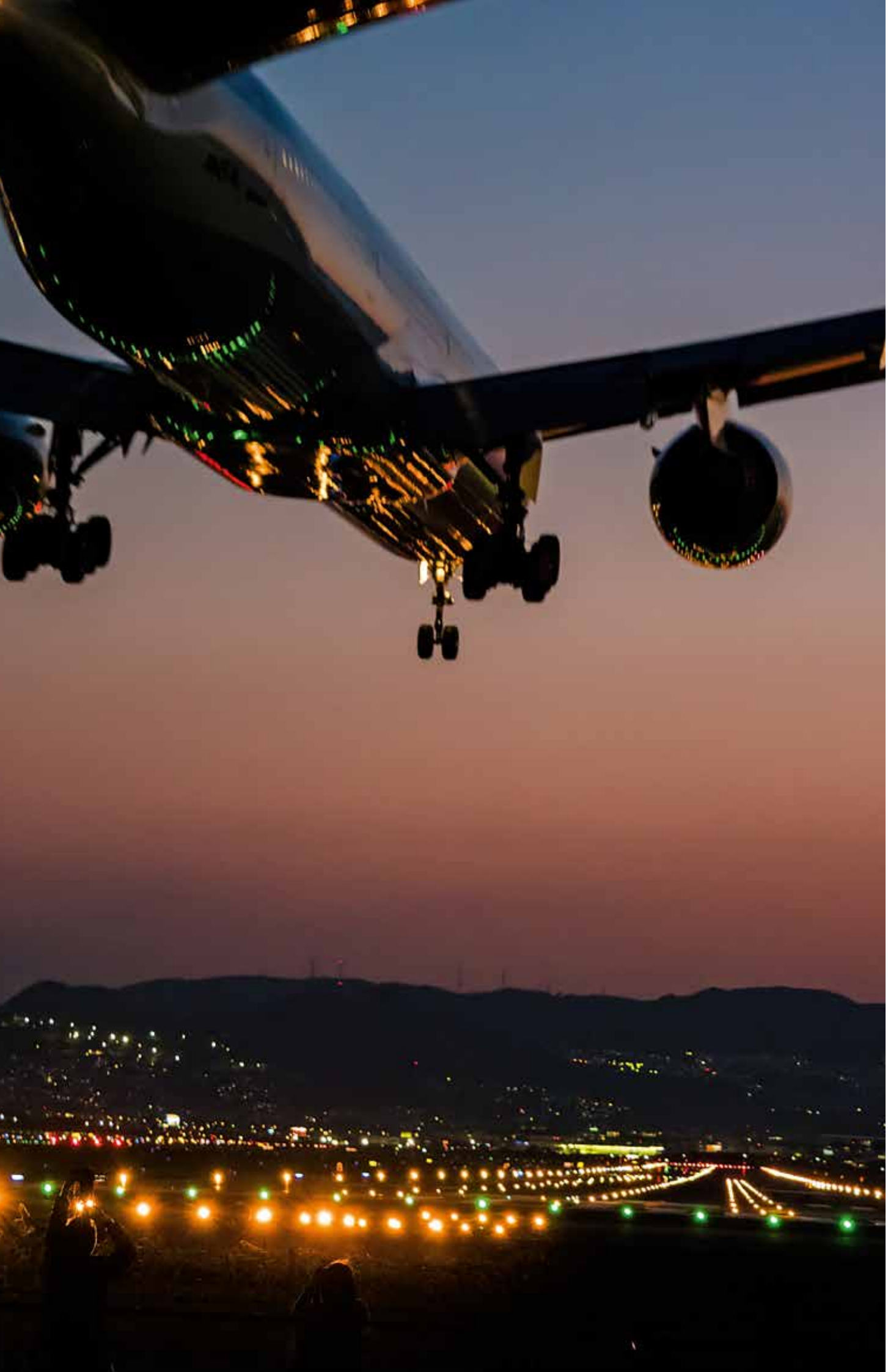
MF = Polyester monofilament weft
TW = Driving face fabric with twill weave

Belt properties

FR = Flame retardant, ASTM D-378
Grade II = Less abrasion resistant styrene-butadiene-rubber
NA = Non-antistatic

Patterns/Coatings

B = Rough fabric, brushed, low friction
BB = Fabric with resorcin-formaldehyde-latex-impregnation ①
C = Smooth cover ②
F = Thin PVC coating
FS = Top face: coarse fabric with PVC impregnation, low friction
Driving face: coarse fabric, brushed, low friction ③
LI = Light impression ④
MRT = Rough-top, mini ⑤
RT = Rough-top ⑥
3/64 = Coating thickness in 3/64 inch



siegling prolink
modular belts

Siegling Prolink stand for exceptionally tough and long-lasting plastic modular belts.

The form-fit design across the width and the modules' superior robustness make them ideal both as a feeder and discharge belts. A range of top-face patterns gear them to the application concerned.

Diverse materials, shapes, pitches, patterns, and open areas provide all sorts of options in airport logistics processes.

siegling proposition
timing belts

Particularly in high-speed sections, items of baggage are conveyed in trays. These keep the baggage safer, decrease damage and enable much better tracking in the baggage handling system. The trays are positioned on the outside on two narrow, parallel conveyor belts or on timing belts. These baggage-tray systems achieve speeds of up to 12 m/s.

In addition to fabric-based Transilon belts, timing belts are also used in this application. The timing belts stand apart because of their exceptional strength and smooth operation. They enable fast acceleration and exact positioning of the tray. The belts are exceptionally durable and very resistant to wear, therefore guaranteeing efficiency.

Siegling – total belting solutions

Committed staff, quality oriented organization and production processes ensure the constantly high standards of our products and services.

Forbo Movement Systems complies with total quality management principles. Our quality management system has ISO 9001 certification at all production and fabrication sites. What's more, many sites have ISO 14001 environmental management certification.

Our service – anytime, anywhere

Forbo Movement Systems employs around 2,500 people in its group of companies. Our products are manufactured in ten production facilities across the world.
You can find companies and agencies with warehouses and workshops in over 80 countries.
Service points are located in more than 300 places worldwide.

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