



siegling transilon
conveyor and processing belts

Amp Miser™
Energy-saving
conveyor belts



Siegling – total belting solutions

forbo

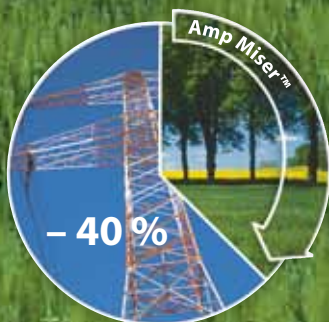
MOVEMENT SYSTEMS

Amp Miser™

Energy-saving conveyor belts

Forbo's corporate objective is to maximise environmental friendliness and enhance product value at the same time. This approach is the cornerstone of our research and development where we work closely with OEMs and users. Amp Miser™ conveyor belts are an impressive example.

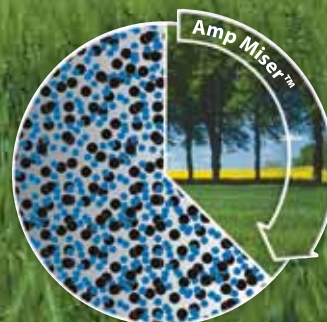
Lower power
consumption



Lower
energy costs



Fewer
CO₂ emissions



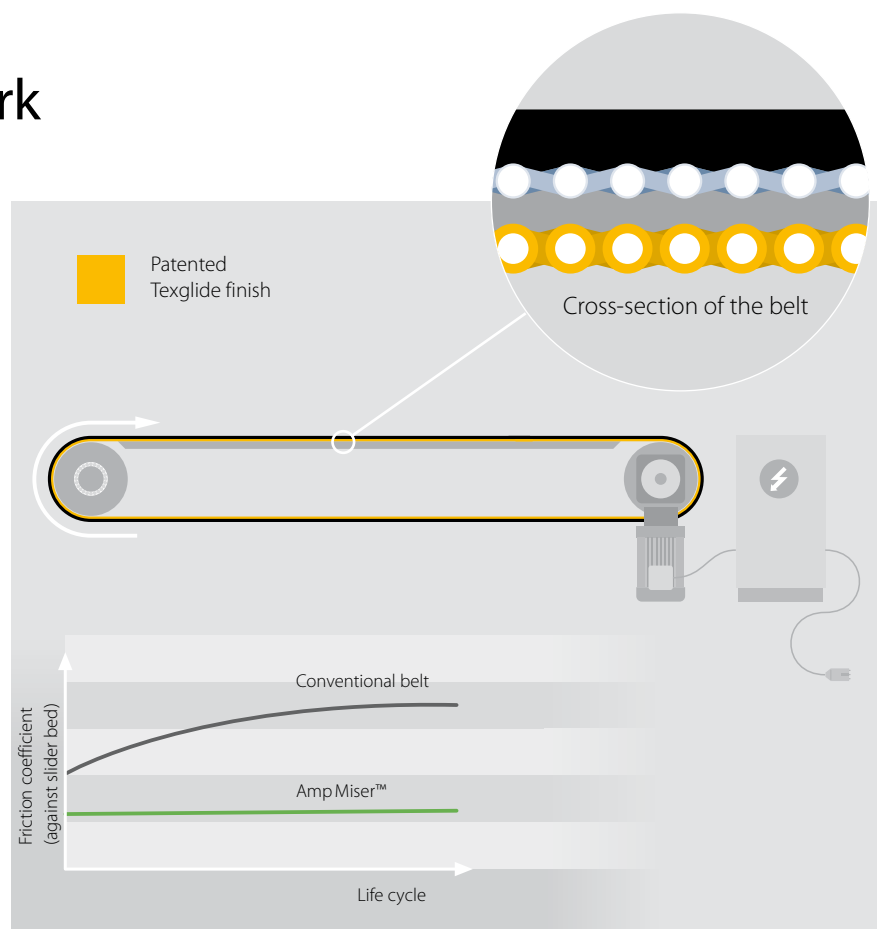
How Amp Miser™ conveyor belts work

Due to a drastically reduced friction coefficient, Amp Miser™ belts have an impact where energy losses in a conveyor are usually the greatest: in the friction pairing between the underside of the belt and support. By adding patented Texglide to the underside fabric, a smooth layer is created that permanently acts like a dry lubricant and therefore minimises energy consumption.

Amp Miser™ conveyor belts excel when several belts are used and goods are constantly conveyed, in other words, apart from at airports, particularly in logistics and distribution centres. In these types of applications, energy savings of up to 40 percent were measured in conveying systems.

Except when unpackaged food is conveyed, Amp Miser™ conveyor belts are ideal for virtually all applications connected with unit goods conveying.

Further advantages include: the cut in noise emissions by an average of 2 decibels compared with conventional conveyor belts, resistance to the impact from



chemicals such as kerosene vapours and the reduction of CO₂ emissions due to low energy consumption.

The properties

ideal friction coefficient with steel



energy saving, eco friendly, cuts overheads

reduced friction coefficient on the underside



low power transmission, longer conveyors possible with one drive

quieter



low noise pollution, enhanced working conditions

underside protection



clean, long service life

forbo

MOVEMENT SYSTEMS

How much our customers save with Amp Miser™ conveyor belts

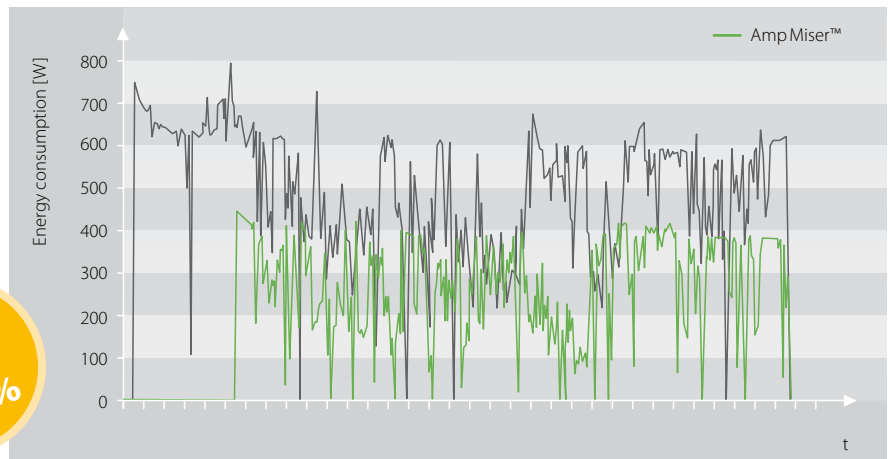
Measurements in real-world conditions have verified what numerous trials at the development and trial stage have indicated. Under a wide range of conditions, Amp Miser™ conveyor belts consume significantly less energy than traditional conveyor belts.

GB TNT, Kingsbury

Horizontal conveyor for packages
Belt type E 8/2 TX0/V10H MT-SE-AMP

Belt dimensions [mm]:	15800 x 700
Motor capacity [kW]:	2.2
Velocity [m/s]:	1

Energy saving
39.8 %

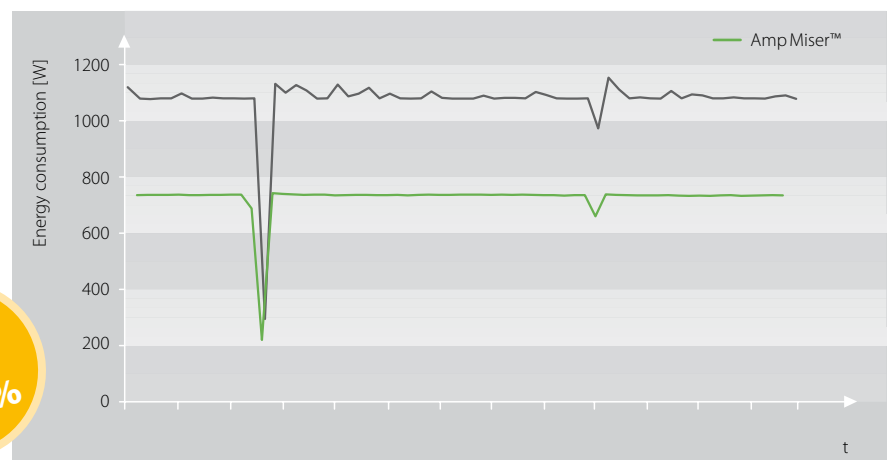


D Düsseldorf Airport

Collecting belt behind the check-in
Belt type E 8/2 TX0/V15 LG-SE-AMP

Belt dimensions [mm]:	44600 x 1000
Motor capacity [kW]:	2.2
Velocity [m/s]:	0.3

Energy saving
32.4 %

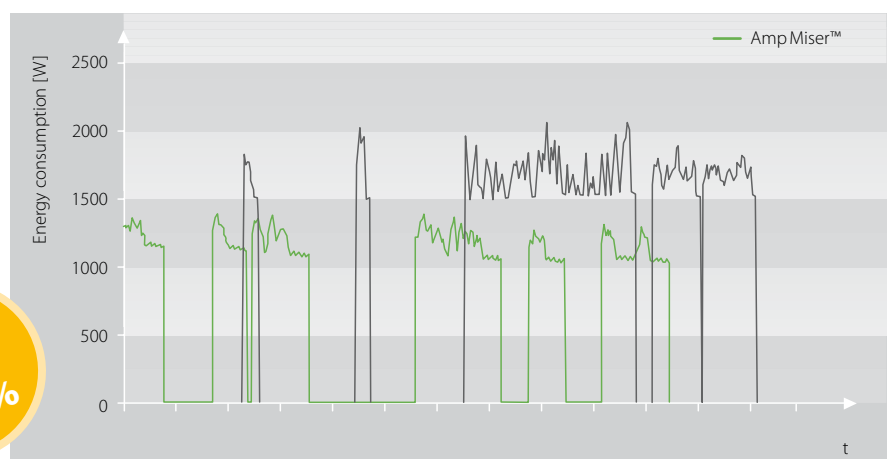


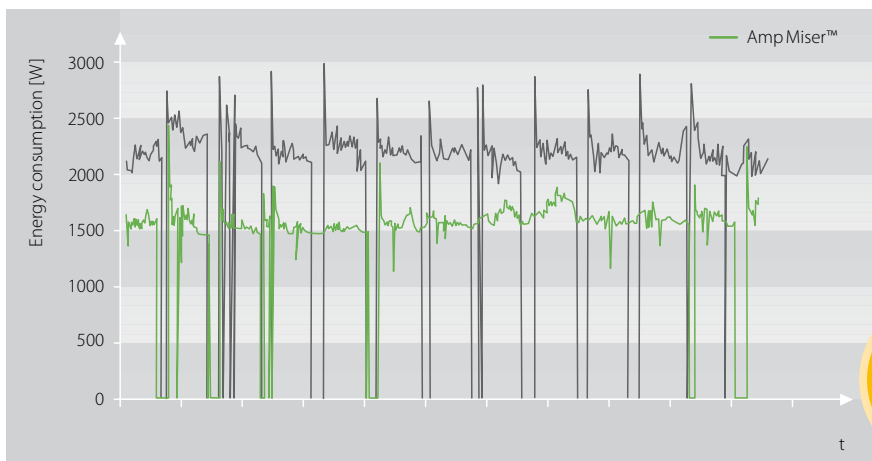
NL Amsterdam Airport Schiphol

Horizontal baggage conveyor
Belt type E 8/2 TX0/V15 LG-SE-AMP

Belt dimensions [mm]:	34550 x 1000
Motor capacity [kW]:	3.0
Velocity [m/s]:	1

Energy saving
30.1 %





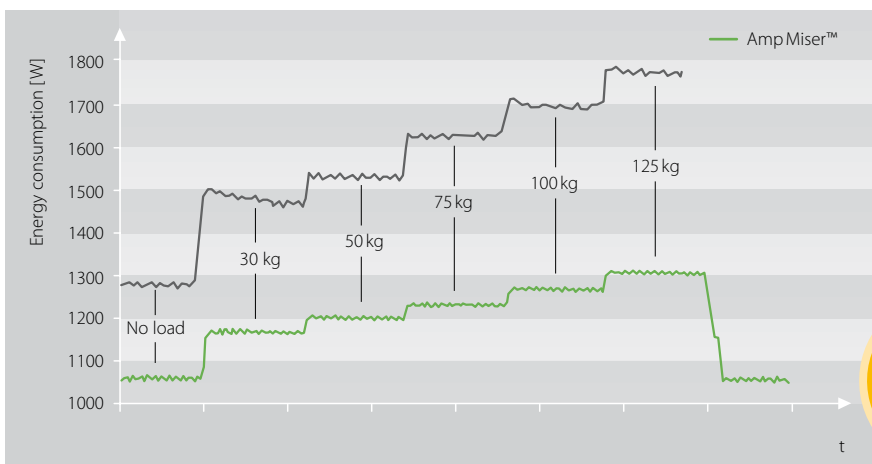
DK Kastrup Airport, Copenhagen

Horizontal baggage conveyor to connect two terminals

Belt type E 8/2 TX0/V10H MT-SE-AMP

Belt dimensions [mm]:	48190 x 1000
Motor capacity [kW]:	5.5
Velocity [m/s]:	2

Energy saving
26.3 %



D Siemens Airport Center, Fürth

Trial conveyor/horizontal conveyor

Belt type E 8/2 TX0/V10H MT-SE-AMP

Belt dimensions [mm]:	19200 x 1000
Motor capacity [kW]:	2.2
Velocity [m/s]:	1.5

Energy saving
26.5 %

Other parcel centres, airports,
goods distribution centres in which
Amp Miser™ conveyor belts are used:

- D Hermes Warehousing, Hamburg
- E Airport Madrid
- GB Airport Manchester
- D Edeka, Neuenkrug

- DK Caljan Teleskop, Aarhus
- AUS Airport Sydney
- D DHL, various sites
- D Volkswagen AG

Work it out for yourself

You can calculate your conveyor's savings potential online now at **www.ampmiser.com** without any obligation. The savings can be enormous, especially where large conveyors are concerned.

The example shown for a baggage conveyor at a major American airport with 45 million passengers annually indicates savings potential of **€ 540 000 per year**.

Energy costs/month without Amp Miser™	€ 150 000
– Energy costs/month with Amp Miser™	€ 105 000
= Savings/month (– 30%)	€ 45 000
= Savings/year	€ 540 000

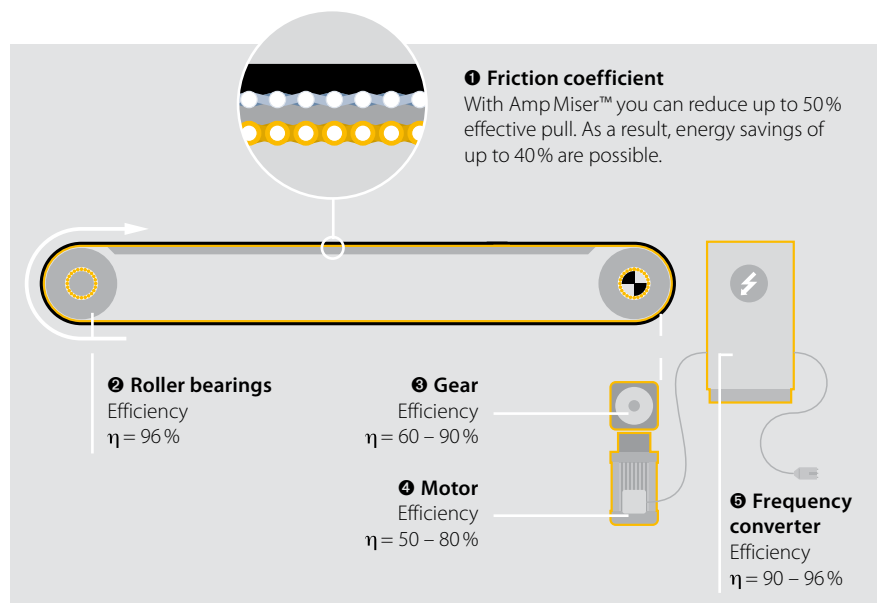


The key savings potentials in the energy requirement overall

The quality, fitting and condition of all mechanical and electrical components play a key role in energy consumption as a whole.

Small drives (1 to 2 kW) for example are usually not very efficient because a lot of the energy is required to drive the conveyor's moveable parts alone.

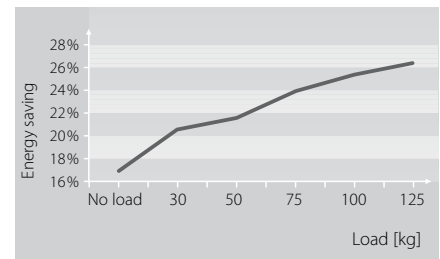
Just by cutting the friction coefficient on the undersides, Amp Miser™ conveyor belts allow you to save up to 40% of the conveyor's energy costs.



Impact of efficiency in a conveyor

Significant savings can be made where:

- conveyors are long;
- loads are heavy (see graphic below);
- slider beds are made of steel or wood;
- speeds are high and constant;
- products are conveyed horizontally.



Energy saving depending on the load (trial layout)

FAQs

How is the ideal underside friction coefficient achieved?

The best friction pairing is achieved on a steel slider bed ($\mu \leq 0.15$). A low friction coefficient is also to be expected on melamine slider beds. Galvanised steel or aluminium is not recommended.

Does the low friction coefficient have a negative effect on power transmission?

Due to the low friction coefficient with the slider bed, the effective power transmission required decreases. Although the friction coefficient to the drive drum is reduced, it is not necessary to increase elongation at fitting or the drum diameter.

How long does the Texslide finish last?

Control measurements have now been carried out for over six years and have indicated no increase in the friction coefficients.

How do I measure energy savings?

Correct measurements are only possible by measuring consumption with a traditional electricity meter (effective efficiency in the three phases). All Forbo Siegling measurement results are based on this method.

Visit www.ampmiser.com for an example calculation of the energy and CO₂ an Amp Miser™ belt cuts and how its extra costs pay for itself.

What do Amp Miser™ conveyor belts cost?

Higher material and process costs make the belts more expensive than conventional belt types. However, due to the energy savings achieved, these costs often pay for themselves after less than one year.



Product range AmpMiser™

	Colour	Article number	Total thickness approx. [mm]	Weight approx. [kg/m ²]	Effective pull at 1% elongation (k _{1%} relaxed) [N/mm width]*	d _{min} approx. [mm]**	Permissible operating temperature [°C]	Airport applications	Distribution centre applications
E 8/2 TX0/V10H MT-SE-AMP	black	906672	2.6	2.8	9	60	-10/+50	●	●
E 8/2 TX0/V15 LG-SE-AMP	black	906673	3.0	3.2	9	60	-10/+50	●	●
E 8/2 TX0/V5H MT-AMP	black	906696	2.2	2.5	6	60	-10/+50	●	●
E 8/2 TX0/V15 LG-AMP	black	906697	2.6	2.9	6	60	-10/+50	●	●

New from Forbo: BioBelt conveyor belts

Amp Miser™ now in eco-friendly quality.
The new Bio Belt conveyor belts are made of renewable materials and biodegradable. More information on request.



Supplied as

- endless
- prepared for endless splicing on site
- with mechanical fasteners

Legend

AMP	=	Amp Miser™
E	=	Polyester
LG	=	Longitudinal groove
MT	=	Matt surface
SE	=	Flame retardant (according to EN 340)
TX	=	Texglide
V	=	PVC

* Established in line with ISO 21181:2005

** Minimum drum diameter was determined at room temperature and does not apply to conveyor belts with mechanical fasteners. Lower temperatures require larger drum diameters.

Splice types

Z-splice

Fulfills top demands on equal thickness.
Very flexible splice. Standard splice for double-layer belt types.

Mechanical fasteners

For quick fitting and removal of the belt without dismantling parts of the conveyor.

Type designation for Siegling Transilon

E 8 / 2 TX0 / V15 LG-AMP black

						Colour
						Belt property/ pattern
						Top-face coating [mm/10]
						Underside coating [mm/10]
						Number of layers or special fabric
						Type class
						Fabric material

Siegling – total belting solutions

Committed staff, quality-orientated organisation and production processes ensure the constantly high standards of our products and services. The Forbo Siegling Quality Management System is certified in accordance with ISO 9001.

In addition to product quality, environmental protection is an important corporate goal. Early on we also introduced an environmental management system, certified in accordance with ISO 14001.



Forbo Siegling service – anytime, anywhere

The Forbo Siegling Group employs more than 2,000 people. Our products are manufactured in nine production facilities across the world. You can find companies and agencies with warehouses and workshops in over 80 countries. Forbo Siegling service points are located in more than 300 places worldwide.