



SICON

Enclosed Belt Conveyor System

SICON belt conveyor systems - Clean, safe and curve negotiable up to 180°.

The SICON conveyor belt remains closed from the feeding point to the discharge point. It thus measures up to particularly stringent requirements with respect to cornering suitability, cost-efficiency and environmental compatibility.

Continental Conveying Solutions

We are the leading expert for conveyor system solutions offering customers worldwide the most complete and advanced product, technology and service portfolio for industry and mining applications. We support our customers, partners, and distributors with a growing range of value-added services along the entire lifetime of a conveyor system operation, from planning and commissioning, to technical advice, training, digital conveyor monitoring, and on-site maintenance. Our cost-effective, sustainable, safe and innovative conveying solutions reduce down-times through state-of-the-art monitoring and predictive maintenance.

We support mining, construction and plant engineering projects around the world as development partner. Customers benefit from an experience of more than 150 years in high-performance conveyor belts. A network of 1,300 experienced service technicians covers key regions including Africa, Asia, Australia, Europe, North America, and Latin America. With this unique expertise and global footprint, Continental is close to its customers providing not only high-quality, long-life products, but also comprehensive support and service - tailored to customers' specific needs and requirements.

SICON - the concept

The extra-high flexibility of SICON conveyor belts renders involved system configurations possible for optimum conformity to topographical conditions. They can cope with corners and edges without the need for additional transfer points. Cornering radii of less than a meter can be realized. This makes possible the serpentine routing often required to cope with major altitude differences over very short distances. The "pouch" remains closed and dusttight even on the return trip.

This protects the material conveyed and the environment. Several feeding and discharging points can be set up along the transport route.



**Good curve negotiability eliminates
need for transfer points**





Proven in diverse applications

- › Construction industry
- › Power industry
- › Cellulose industry
- › Steel/metal industry
- › Underground/surface mining
- › Foodstuffs industry
- › Processing industry

The key advantages

- › Copes well with steeply rising topography
- › Eliminates need for transfer points thanks to good curve negotiability
- › Does not pollute because belt closed on return trip
- › Allows for two-way conveyor system; belt can be loaded in both directions; varying routing possible for trip out and back
- › Prevents dust emissions
- › Protects material conveyed
- › Is lightweight and flexible, so easy to install; self-centering between guide pulleys and support pulleys
- › Makes minimal space demands
- › Manages gradients of up to 35°
- › Reduces tensile load on belt by arrangement of several drive stations (with at least 90° encapsulation in curves)
- › Is self-cleaning
- › Can negotiate 180° curves with a radius smaller than 1 meter
- › Allows for many feed and discharge options
- › Loads uniformly and accelerates quickly

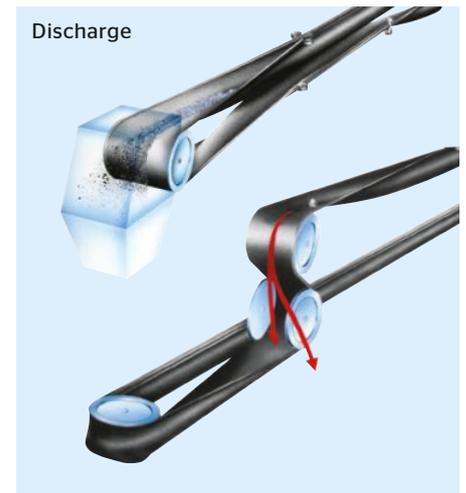
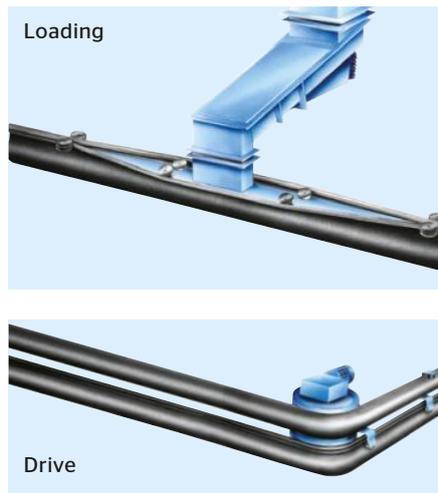


Focus on flexibility



How it functions

The SICON conveyor belt is made of a highly flexible rubber capable of forming a pear-shaped "pouch". Supporting profiles are vulcanized onto both edges. Their job is to track the belt between the support and guide pulleys. Steel cords are vulcanized into the center of the carrying profiles. The cords absorb the belt tension from the drive components. As the profiles are arranged above one another, the belt is closed to form a dusttight pouch. Another advantage of this profile arrangement is that it enables the belt to incline to the side so that the cornering radius works out to less than a meter.



Loading

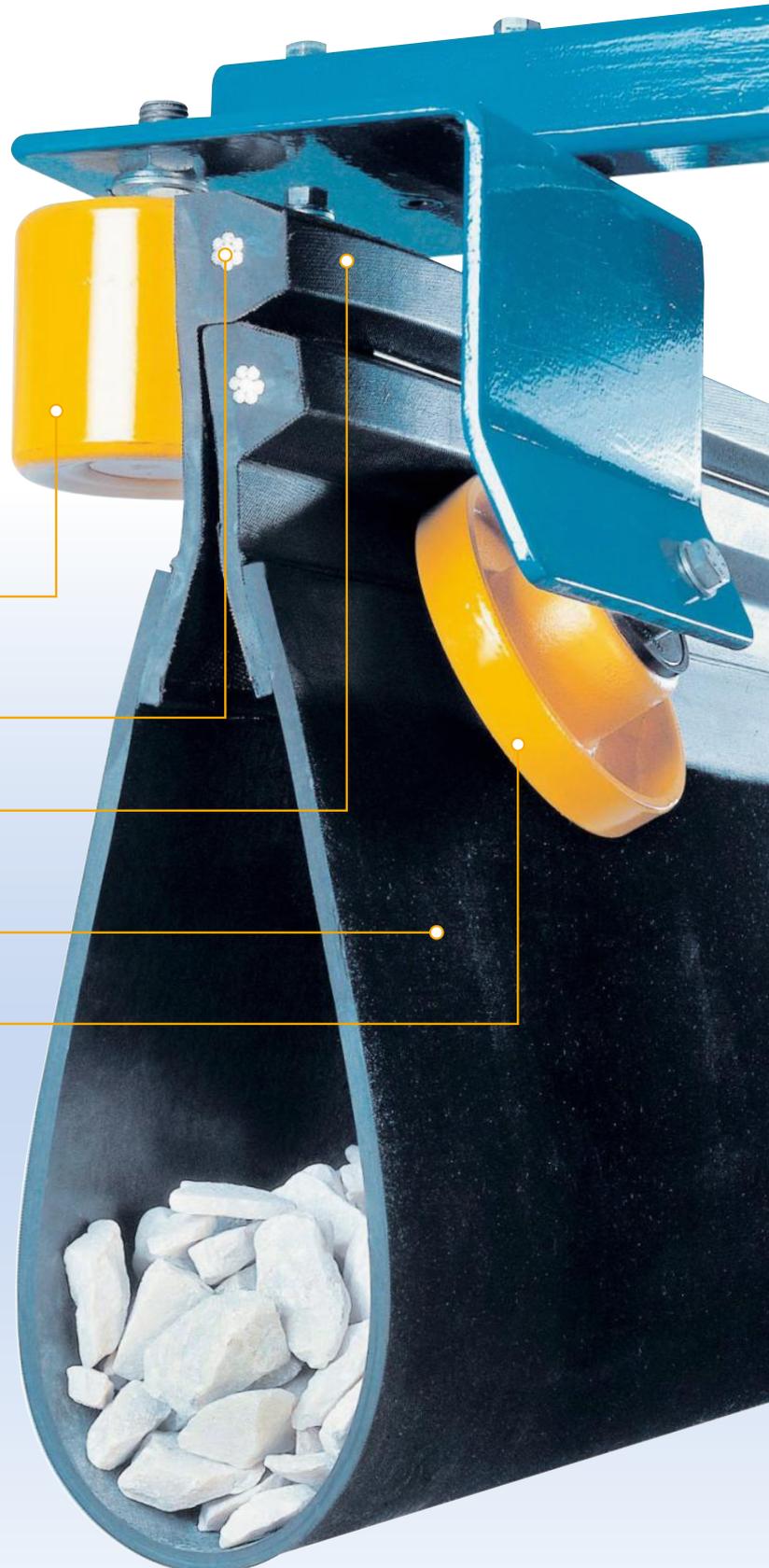
The belt can be loaded at anywhere along the conveyor route. Special guide pulleys function to give the belt a U-shaped opening. In this way, the belt cushions the fall of the material during loading while steadying and accelerating its flow.

Drive / curves

The belt is guided into curves by means of individual deflection pulleys. The drives are fitted in at curves of at least 90°.

Discharge

In the case of horizontal discharge, the belt opens up gradually and the pear-shaped pouch is transformed into a flat surface. The material being conveyed drops off as the belt passes over the deflector pulley. No scraper is required. After discharge, the belt regains its original pouch form for the return run. Intermediate discharge is possible at any point along the conveyor run - either for the purpose of unloading or for further conveyance to the next discharge station.



- › **Vertical guide roller**
- › **Two steel cords vulcanized into the belt with common axis for extremely short radii**
- › **Two profiles led by the guide and support rollers**
- › **Pouch-shaped part of belt for carrying material conveyed**
- › **Support rollers tilted to close the belt**

SICON belt conveyor system - Proven in diverse applications



The standard range

SICON 100

Size of profile approx. 25 x 25 mm - pulley diameter: 1,200 mm

Belt width unfolded (mm)	Conveying capacity (m ³ /h)
S100/ 650	35*
S100/ 800	60*
S100/1,000	120*
S100/1,200	150*

* depending on bulk density and velocity

SICON 1000

Size of profile approx. 50 x 50 mm - pulley diameter: 2,000 mm

Belt width unfolded (mm)	Conveying capacity (m ³ /h)
S1000/ 800	120*
S1000/1,000	200*
S1000/1,200	300*
S1000/1,400	400*

For high conveyor capacities, long conveyor systems and high stress loads

Materials conveyed and branches of industry

Construction industry	Power industry	Cellulose industry	Steel/metal industry	Underground/ surface mining	Foodstuffs industry**	Processing industry
plaster	ash	wood chips	ore	ore	residual products	chemicals
limestone	fuel peat	kaolin	foundry sand	grinding balls	raw materials	finished goods
clay	gypsum	bulk goods	coal	minerals	fish meal	(powder, granules)
sand	wood chips	used paper	metal concentrate	sand	fish feed	minerals
stone	limestone	salt	slag		grain	
dry mixture	coal				pellets	
cement	recycling materials					

** Use and suitability to specs on request



Simple loading of sensitive conveyor belts with open belt



High-care transport thanks to enclosed belt design



Does not pollute thanks to enclosed belt on return trip

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