



Belt Conveyor.
Gentle Conveying.

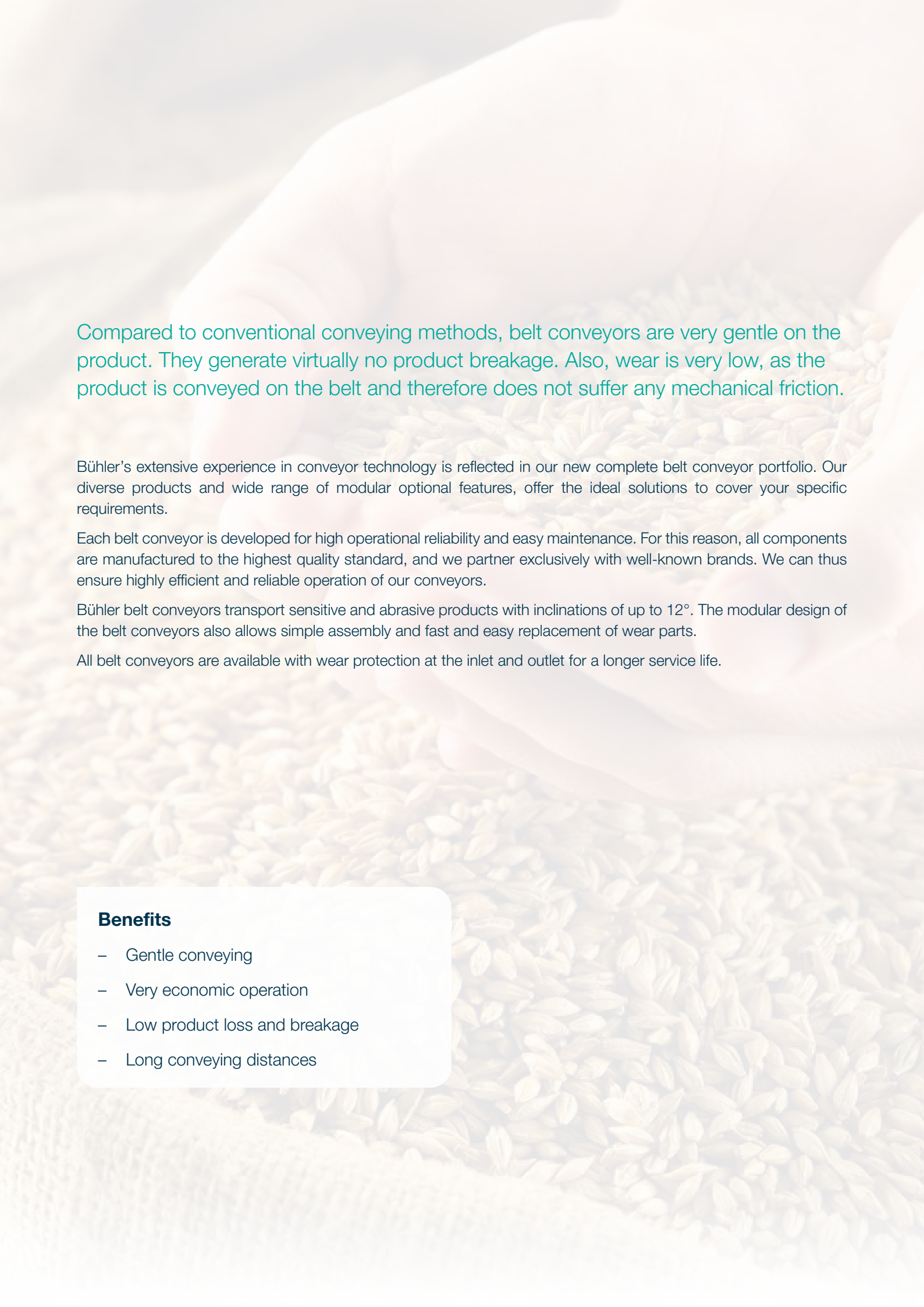
Innovations for a **better world.**

BUHLER

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Compared to conventional conveying methods, belt conveyors are very gentle on the product. They generate virtually no product breakage. Also, wear is very low, as the product is conveyed on the belt and therefore does not suffer any mechanical friction.

Bühler's extensive experience in conveyor technology is reflected in our new complete belt conveyor portfolio. Our diverse products and wide range of modular optional features, offer the ideal solutions to cover your specific requirements.

Each belt conveyor is developed for high operational reliability and easy maintenance. For this reason, all components are manufactured to the highest quality standard, and we partner exclusively with well-known brands. We can thus ensure highly efficient and reliable operation of our conveyors.

Bühler belt conveyors transport sensitive and abrasive products with inclinations of up to 12°. The modular design of the belt conveyors also allows simple assembly and fast and easy replacement of wear parts.

All belt conveyors are available with wear protection at the inlet and outlet for a longer service life.

Benefits

- Gentle conveying
- Very economic operation
- Low product loss and breakage
- Long conveying distances

Why Bühler?

Tailored solutions for our customers.

Built to last and engineered to suit your specific requirements, belt conveyors from Bühler help you to maintain operational excellence and achieve better profitability.



Built for gentle transport.

Sensitive and abrasive grains require a lot of care. Being more gentle than other mechanical conveyors, belt conveyors create less friction and cause virtually no breakage. The grain runs solely on the belt, hence product residues caused by contact with mechanical components are eliminated.

Built to fit.

From grain collection points and trans-shipment warehouses to terminals, from goods receiving to distribution, there are many different environments in which our machinery must fit and function. Bühler's range of Enclosed Belt Conveyors, Roller Trough Belt Conveyors and Through Belt Conveyors provides lets you choose from a broad performance spectrum with high capacities, fit for virtually all storage applications.

Tailored to your needs.

We have many years of experience in the field and are known for our engineering prowess. We are guided first and foremost by our customers' specific requirements. This is reflected in our wide range of product and component options, available to suit all of your needs.

Built to last.

Downtime has a detrimental effect on the profitability of your operations. Bühler's belt conveyors are built to serve you with the utmost reliability. Our engineers only source, manufacture and assemble parts of the highest quality so you can achieve maximal operational efficiency. Bühler's spare parts have an exceptional lifetime of up to 50,000 working hours, ensuring low maintenance.



LBIA.
Enclosed Belt Conveyor.

Designed for today's market requirements, providing dust free and silent product handling.



LBAB.
Roller Trough Belt Conveyor.

A wide choice of available capacities in the well-known classical open design, for a cost-effective solution.



LBBA.
Trough Belt Conveyor.

A special economic belt conveyor line, engineered for small and medium sized plants for shorter transport distances.

Enclosed Belt Conveyor. **LBIA.**



Clean and powerful.

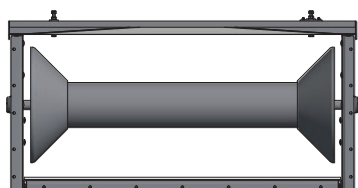
Where a dust-free environment is required, the Enclosed Belt Conveyor LBIA is the right choice. The belt components are entirely encapsulated. This prevents dust emissions and at the same time protects the grain from external contamination. The enclosed belt conveyor is often used at grain collection or grain terminal facilities, for ship loading and unloading, but also in a wide range of grain processing applications

The new LBIA can be fitted either with spool shaped belt support rollers or with three cylindrical idlers. The wide range of belt sizes available, offer transport capacities up to 2,600 t/h.

Customer value

- Dust-emission free
- Rain and waterproof
- High system availability & sanitation
- Easy access for maintenance

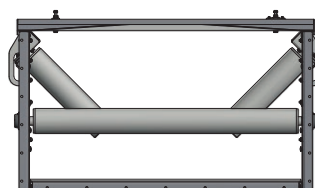
Spool design



Benefits

- Most economic solution due to single roller system
- Single spool, outside bearings for minimal maintenance
- Minimal use of components

Roller design



Benefits

- Lowest friction, lowest operating costs
- Low energy costs
- Higher filling level of the belt due to steeper inclines

Type	Belt width [mm]	Spool design Capacity [t/h]* Wheat	Roller design Capacity [t/h]* Wheat
LBIA 650	650	350	
LBIA 800	800	500	
LBIA 1000	1,000	700	1,000
LBIA 1200	1,200	950	1,300
LBIA 1400	1,400	1,200	1,850
LBIA 1600	1,600	not available	2,600
Surface	Painted (outdoor quality)		
Trough material	Standard steel		

*Wheat: Bulk density 0.75 t/m³, Speed 3.1 m/s

Overview of features.



Encapsulated and waterproof design.

The fully covered design allows dust-free operation and protects the product from moisture and other environmental influences.



Split pillow block bearings.

Ensure easier assembly and maintenance of the drums and bearings in the drive-, tensioning- and intermediate outlet station.



Special material return concept, safe operation and optimum sanitation.

Material that falls from the upper conveyor part is transported back to the end of the conveyor on the returning belt, sliding directly onto the lower bottom trough. The specially designed cage pulley avoids any product accumulation within the belt return area. Additional, lateral paddles ensure the material kicks-back onto the main belt area. This self-cleaning trough concept ensures not only a high degree of sanitation within the belt conveyor itself, but is also the key to avoiding machine down-time and thus ensures a high degree of operational reliability.



Choice of outlets.

- Two-way outlet for transport directly into the silo or for transfer to other conveyors to eliminate gravity spouting and flap box
- Intermediate outlet for transportation to several silo points

Different belt roller concept/choice.

The choice of two different belt roller types offers the possibility to tailor the enclosed belt conveyor to the priorities in your application. The conventional cost-efficient spool design covers the basic application needs. The roller design allows use of a swale with a larger cross-section and thus a higher transport volume with a comparable footprint.



Sanitation and safe operation.

Thanks to the external bearing arrangement, the product area is completely sealed off and protected against contamination. In addition, heat development in the bearings in the product space is avoided.



Operation safety & failure monitoring.

Various optional monitoring devices provide essential performance data for the central automation system.

Different openings, considering all EHS (operator safety) standards, allow easy direct access for onsite operation.



Flexible belt tensioning concepts.

Depending on the required conveyor length and on-site space conditions, two different belt tensioning options are available.

- Spindle tensioning for applications up to 100 m
- Weight tensioning for applications up to 200 m



The Roller Trough Belt Conveyor. **LBAB.**



Long-distance conveying.

The classical Roller Trough Belt Conveyor transports products over a maximum distance of 500 m with an impressive throughput capacity of up to 3,100 t. It is an extremely capable conveyor at an attractive price point. Thanks to the open design, all parts are easily accessible. This highly efficient and reliable series features a wide range of modular options providing you with a solution that perfectly fits your needs and requirements. The Roller Trough Belt Conveyor is typically used at collection points, storage facilities and ship loading and unloading terminals.

Customer value

- Robust design for long service life
- Intuitive design enables easy maintenance
- Highly standardized, reducing complexity
- Modular design with multiple options

Technical data and capacities.

Depending on the raw material and application, various drive options are available. The following table provides an overview of the possible capacities and basic data.

Type	Capacity [t/h]*			Max. drive power [kW]	Belt width [mm]	Max. conveying length [m]
	2.1 m/s	2.6 m/s	3.1 m/s			
LBAB 650	240	290	340	90	650	500
LBAB 800	370	460	550	132	800	500
LBAB 1000	600	750	895	220	1,000	500
LBAB 1200	890	1,105	1,315	264	1,200	500
LBAB 1400	1,240	1,500	1,800	320	1,400	500
LBAB 1600	1,650	2,040	2,350	400	1,600	500
LBAB 1800	2,100	2,600	3,100	400	1,800	500
Roller spacing	1,200 mm (upper run) / 3,100 mm (lower run)					
Roller diameter	Available in different diameters. The diameters in the painted and stainless versions are different					
Surface	Hot-dip galvanized					
Trough	3-roller design (45°)					
Machine frame	Standard steel					

*Wheat: Bulk density 0.75 t/m³, Speed 3.1 m/s



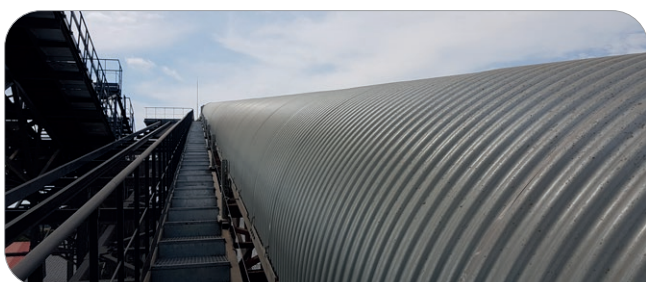
Robust rollers.

To ensure a long and trouble-free service life for your belt conveyor, heavy duty rollers with a large diameter are used.



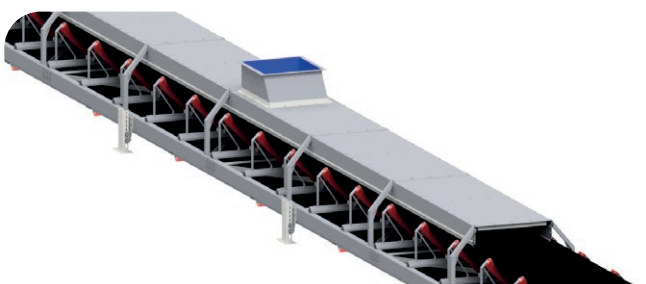
Easy maintenance.

For applications where easy access and maintenance is critical, the open design of the belt conveyor is the ideal solution.



Rain cover.

For outside applications the rain cover protects the belt and product against rain, wind, and other external factors.

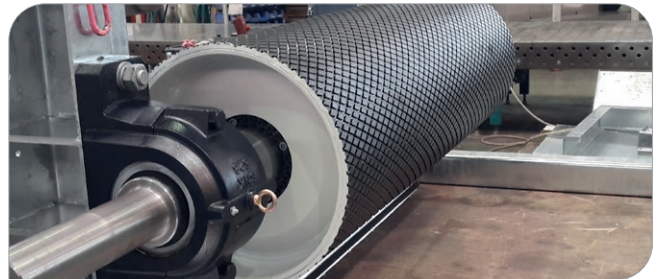


Aspiration channels.

For a clean product transfer point, the system features strategically placed aspiration channels. This ensures clean and optimal operation, and also significantly reduces the cleaning requirements.

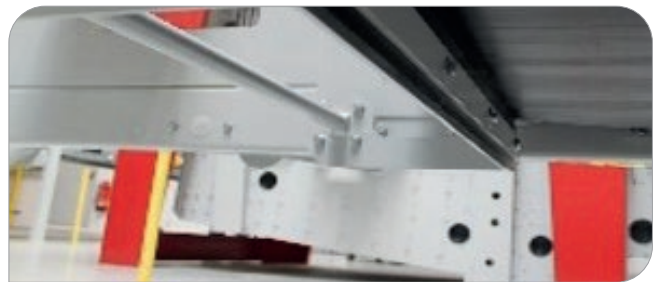
Split pillow block bearings.

Ensure easier assembling and maintenance of the drums and bearings in drive and tensioning stations as well as on tripper cars.



Belt and drum scraper.

A clean belt prolongs the service life of your belt and avoids product contamination. The scrapers are designed to remove any carry-over product.



Wear protection.

Depending on the product and application, the appropriate wear protection can be selected. The available materials are PU, manganese steel or ceramics.



Tripper car.

For full flexibility there is a tripper car for loading applications.



Trough Belt Conveyor. **LBBA.**



Efficient conveying at low throughput capacities.

The Trough Belt Conveyor LBBA is an economic solution for small to medium sized plants. With a capacity of up to 250 t/h and conveying distances of up to 120 meters, the highly flexible trough based design is ideal for conveying grained materials and fertilizer.

Customer value

- Quick assembly and disassembly
- Less expensive belt conveyor



Quick assembly and disassembly.

The lightweight design is delivered in pre-assembled segments to allow efficient installation and maintenance.

Less expensive belt conveyor.

For small and medium-sized plants the Through Belt Conveyor is an interesting alternative to the other Bühler belt conveyors.

Technical details.

Type	Capacity [t/h]* Wheat	Max. conveying length [m]
Type 500	80	120
Type 650	150	120
Type 800	250	120
Material	Mild steel and stainless steel	
Surface finish	Sendzimir-galvanized	

*Wheat: Bulk density 0.75 t/m³, Speed 2 m/s

Options for all belt conveyors.

Different belt options – choose the most suitable one for your application.

Each of our belt conveyors can be fitted with a range of four different belt qualities to suit specific applications.

Execution	E1	E2	E3	E4
Color	Black	White	Black	Black
FDA-certified	No	Yes	No	No
Flame resistant (ISO 340)	No	Yes	No	Yes
Oil and grease resistance	Moderate resistance to oil and grease	Resistance to oil and grease	Resistance to oil and grease	Resistance to oil and grease
Operating temperature (continuous)	-20°C up to 60°C	-30°C up to 110°C	-20°C up to 60°C	-20°C up to 60°C

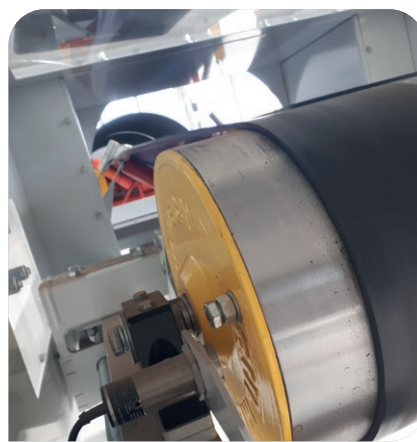
All belts are antistatic in accordance with ISO 284

Sensors protect against damage and breakdown.



Misalignment sensor.

The sensor detects lateral misalignment of the belt.



Speed monitoring.

The sensor monitors belt speed and sends an alert in case of belt slippage.



Emergency pull rope switch.

Emergency stop at any position of the conveyor.

Wheata Industrial Co. LTD, Khartoum, Sudan.

Convinced by Bühler's performance over the years and, in particular, its proven energy-saving belt conveyor technology, Wheata has recently ordered a new high capacity silo facility for its operations in Port Sudan.



Project details.

- Storage capacity: 61,500 t
- Truck intake: 1x 600 t/h
Truck loading: 1x 300 t/h
- Processing: 1x drum sieve RCDA, 600 t/h
- Conveying:
 - 6x belt conveyors: 300 t/h**
 - 4x belt conveyors: 600 t/h**
 - 2x chain conveyors: 300 t/h
 - 5x chain conveyors: 600 t/h
 - 1x elevator: 300 t/h
 - 2x elevators: 600 t/h
- Dedusting: 3 round filters
- Unloader: Portalink 600 t/h

The customer.

Wheata Industrial has a long-standing relationship with Bühler. Since the first silo system was delivered in 2001, Bühler has helped the company to fulfill its role in supplying the region with high quality wheat products.

The new high capacity system, which has recently been put into operation, provides maximum reliability and efficiency, reliable automation, and high standards in terms of food hygiene and health and safety.

“Our Port Project is a proper combination between the creative design and Bühlers reliable technology, which combines high capacity with ease of use.”

Abubakar Akasha, Deputy Plant Manager,
Wheata Industrial Co. LTD

TASA, Santander, Spain.

TASAs requirements for the new terminal were very high. The terminal needed to be improved to be an excellent example of food safety and sustainability in practice.

Project details.

- Storage capacity: 90,000 t
- Truck intake: 5x 300 t/h
Train intake: 2x 300 t/h
Truck and train loading: 200 t/h
- Conveying:
4x belt conveyors: 600 t/h
2x belt conveyors: 800 t/h
8x chain conveyors: 300 t/h
9x chain conveyors: 600 t/h
2x elevators: 300 t/h
- Dedusting: round filter
- Unloader: 2x Portalink 600 t/h wheat / 400 t/h soja

The customer.

Within a record time of two years, Bühler engineered and delivered all the process technology for the plant. Now, the quality and traceability TASAs customers are asking for is guaranteed at alltimes, not least thanks to the use of the highest quality conveying technology. In this highly competitive business, the new terminal makes it possible for TASA to be successful, now and in the future.

See the
customer success
story as a video



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