



COMPONENTS FOR ELEVATORS

Elevator belts
Elevator buckets
Elevator bolts
Elevator belt fasteners
Drive and return pulleys
Pulley laggings
Process monitoring systems



SOLID PARTNERS FOR POWDER & BULK HANDLING COMPONENTS

Your service and knowledge
supplier of reliable components
for the bulk handling and
process industry



HIGH-QUALITY ELEVATOR COMPONENTS FOR THE AGRICULTURAL AND INDUSTRIAL SECTORS



Muller Beltex elevator components are a household name in the market. They help make your maintenance cost clear and transparent. These components reduce maintenance and wear in elevators, specifically for the agricultural and industrial sectors. Furthermore, our innovative solutions will improve your efficiency.

Muller Beltex works according to the Total Cost of Ownership (TCO) concept. This unburdens the customer. Not only do we provide the best solution for the problem, we also take responsibility for the solution we offer, a solution that can be measured in terms of quality, service life and cost. This means you can be sure that the solution you choose does exactly what it promises: it ensures a longer service life or provides a higher capacity, i.e. lower cost per tonne of processed product.

Our full product range comprises elevator belts featuring bucket bolt holes, elevator buckets, elevator bolts, elevator belt fasteners, pulley lagging, and drive and return pulleys. The combination of a comprehensive product range and our extensive experience and know-how ensures that we offer the right solution for every elevator.

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SUPPLIER OF MORE THAN JUST ELEVATOR COMPONENTS

The elevator

An elevator is a closed system, which means it can be difficult to see what goes on inside the system. Essentially, elevators operate according to a fairly simple principle and over the years not much has changed in this respect. From experience we know which elevator components and moving parts are subjected to the most wear due to the mechanical load and/or the products to be processed. At Muller Beltex, we focus on these critical elevator components and everything that comes into contact with the elevator belt.

Mechanical load and products to be processed

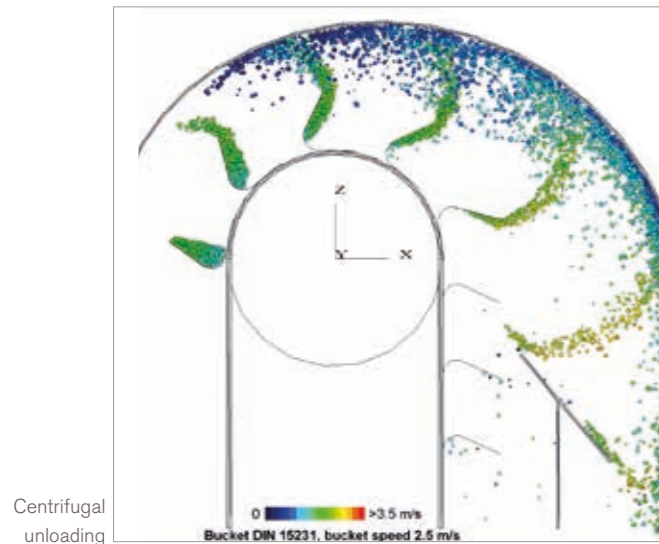
Replacing an elevator belt half way through its expected service life can be a costly business. What lies at the heart of optimal and safe bulk processing is the elevator belt: to us, the elevator belt is the key. This is the heart of the machine and, when running, the belt is subjected to various loads. The illustration opposite shows examples of conditions to which elevator belts are exposed. Other examples include:

- high or low temperatures
- oils, acids and grease
- slipping on the pulleys
- poor load distribution
- misalignment of the elevator belt
- worn out pulley lagging
- heavy elevator buckets
- incorrectly mounted elevator bolts
- poorly constructed return pulleys

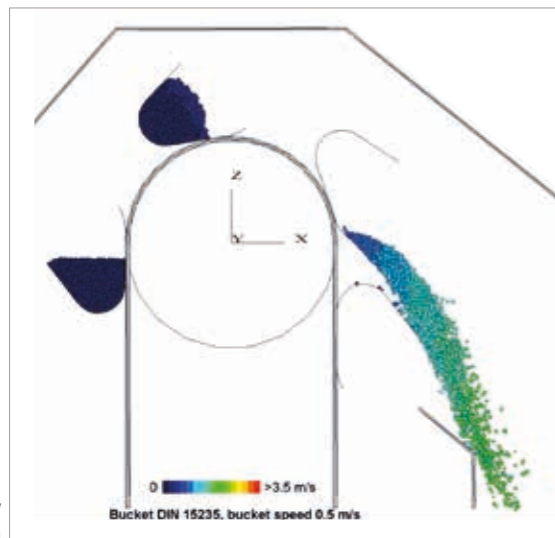
How to avoid wear and reduce maintenance

Choosing a good quality elevator belt is crucial when it comes to preventing costly downtime. Muller Beltex developed its own Polysur® elevator belts and manufactures them especially for use in elevators. This means we can guarantee a maximum life for your components. Our extensive product range with supplementary components offers a high-quality package that prevents wear and keeps maintenance to a minimum.

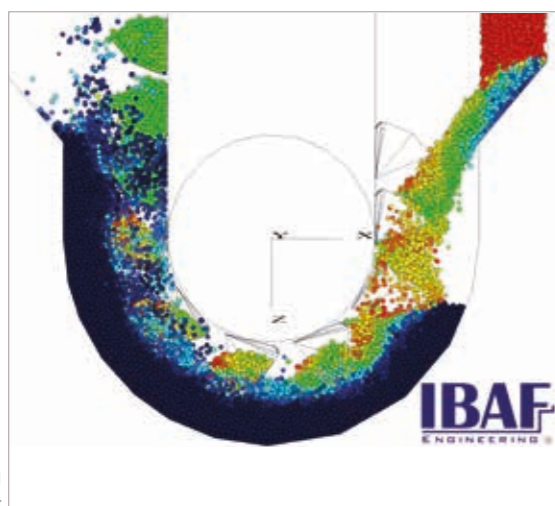
Proper monitoring of production is essential when it comes to reducing maintenance cost. Muller Beltex monitoring systems oversee the entire production process thus ensuring problem-free bulk processing and optimum reliability.



Centrifugal unloading



Gravity unloading

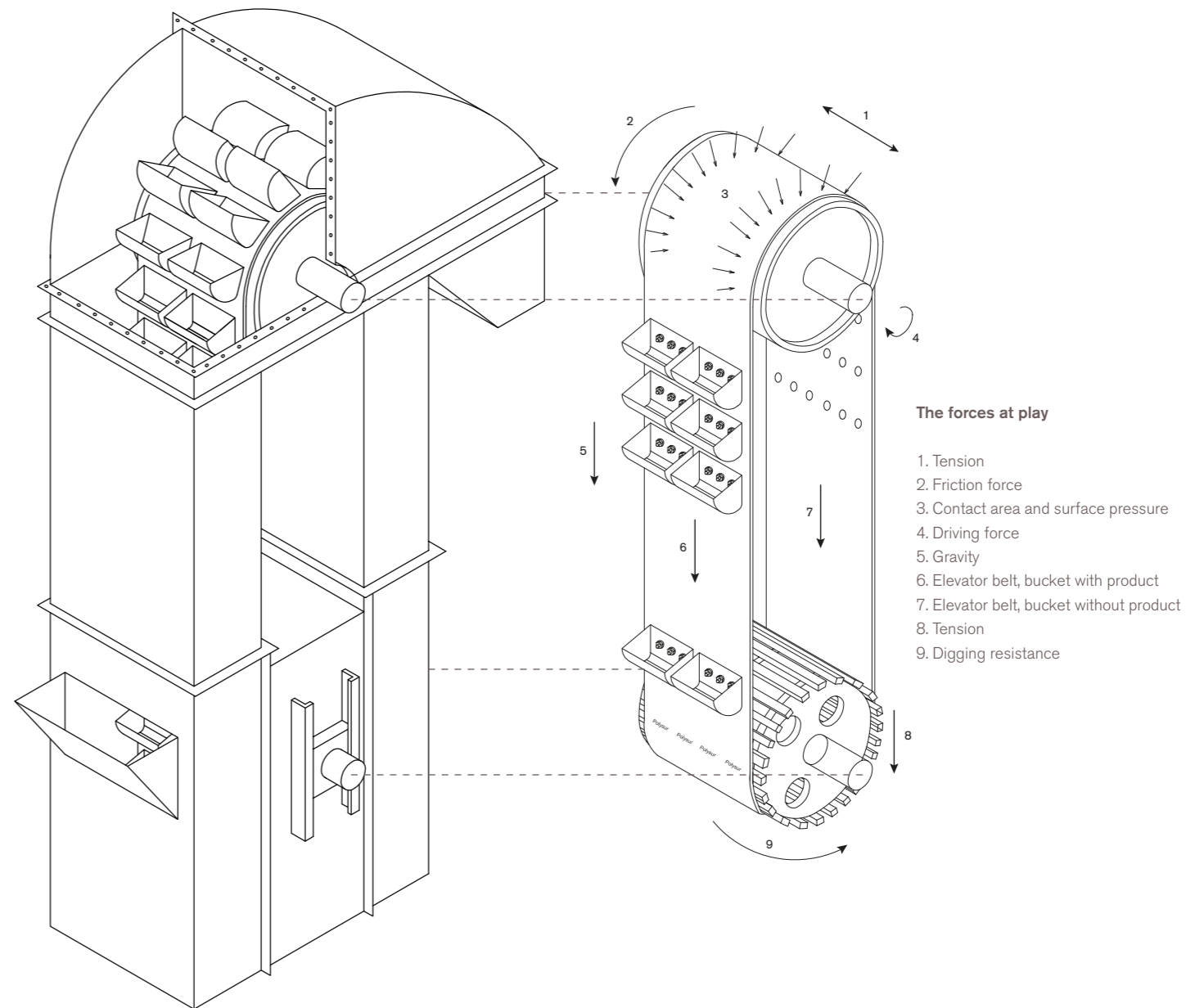


Self-cleaning elevator boot

Source for the three simulations mentioned above: www.ibaf-engineering.de



A GOOD QUALITY ELEVATOR BELT IS CRUCIAL WHEN IT COMES TO PREVENTING COSTLY DOWNTIME



WE SECURE THE
MECHANICAL SIDE
OF YOUR
INSTALLATION

OPTIMUM PRODUCTION RESULTS

Continuity is secured if the installation is in good working condition from a mechanical point of view. To achieve this, Muller Beltex offers integrated and comprehensive advise so that you get a customised solution and the best result from your production process.

THE RIGHT POLYSUR® ELEVATOR BELT FOR EVERY INDUSTRY

Unrivalled quality in elevator belts

Polysur® has been Muller Beltex's registered trademark for elevator belts since 1973. Its structure and properties are fully optimised for elevator belts and stand for quality, reliability and innovation. Polysur® elevator belts are suitable for a wide range of applications. Special versions have been developed for those special conditions where the standard belt quality does not suffice e.g. when dealing with chemicals, increased levels of wear or high temperatures. All qualities and versions have been produced in accordance with DIN, ISO and NEN standards, and can be supplied with bolt holes for elevator buckets. Polysur® elevator belts are reinforced with specially woven polyester/polyamide plies (EP) or steel fabric reinforcements. Distinguishing features of Polysur® elevator belts include:

- optimum reliability
- no blistering and delamination
- minimum elongation
- general safety



Polysur® Ferro steel cord belt during production



Elevator belt with EP plies

Optimum reliability

With 30% more polyamide weft threads in the EP fabric, Polysur® elevator belts are heavier and stronger transversely. As a result, the belts track better and are quieter when running. At the same time, the elevator buckets are more securely fastened to the belt. Significant lift heights and heavy elevator buckets require an extremely strong transverse belt construction. This can be achieved with Fleximat® steel fabric reinforcement, a specially produced fabric comprising length cords and cross cords which are bound together to form a unified structure.

No blistering and delamination

High adhesion prevents slipping and blistering and ensures that the rubber cover does not peel off. DIN prescribes a minimum adhesion of 4 N/mm. The rubber covers on the fabric and steel cable inserts in Polysur® elevator belts has extremely high adhesive properties, with an EP fabric with which we aim to achieve an average of 9 N/mm. Our Polysur® Ferro elevator belts with steel fabric reinforcement can even achieve 18 N/mm on an average production run.

Minimum elongation

Minimum elongation means that shortening the belt several times due to stretch can be avoided. In practice, Polysur®'s tightly woven EP fabric guarantees a minimum elongation of 0.5% on average for a well-calculated belt strength. There is virtually no elongation in our elevator belts with steel fabric reinforcement.

General safety

All Polysur® elevator belts are anti-static in accordance with DIN 22104 (ISO 284). This means that the

3×10^8 Ohm standard is not exceeded. Polysur® elevator belts are also available in a flame retardant version that complies with DIN 22103 (ISO 340). The high quality of Polysur® elevator belts is guaranteed, because Muller Beltex makes no concessions to the quality of the rubber it uses.

Oils, acids, grease, low and high temperatures all influence the service life of elevator belts and compromise the rubber. With Polysur®, blistering, perishing and swelling of the belt is kept to a minimum and risks are limited.

AS MULLER BELTEX
MAKES NO
CONCESSIONS
TO QUALITY,
YOUR ELEVATOR
BELTS HAVE
LONGER RELIABILITY

polysur®

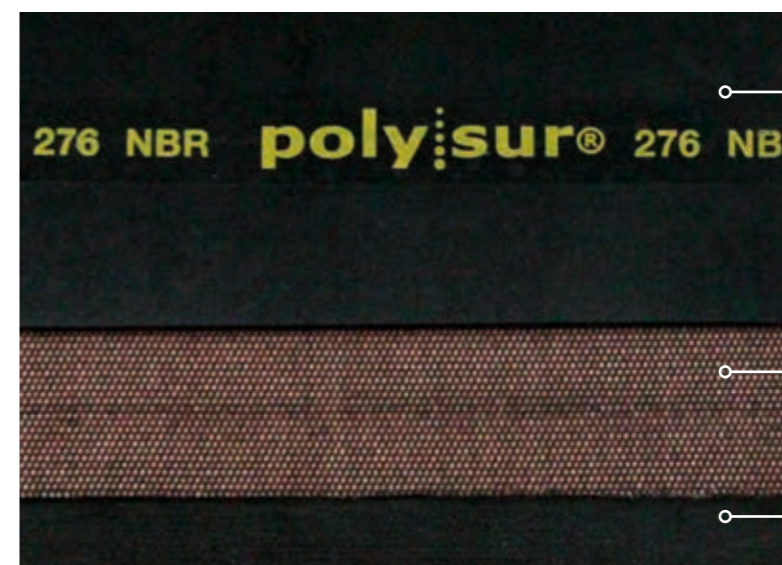


NO CONCESSIONS TO THE QUALITY OF THE RUBBER

Longer flexibility due to high quality

Polysur® elevator belts are manufactured at a vulcanisation temperature of 145 to 160 °C. If the temperature in the elevator is relatively high, the vulcanisation process continues and the rubber hardens. The extent of the hardening under the influence of high temperatures depends on the kind of rubber processed. Therefore, there is by definition no such thing as a 'heat-resistant belt'. 'A belt with increased resistance to deterioration under the influence of temperature', would be a better description. This deterioration process can be limited by using rubber qualities such as EPDM and EPM, which stay flexible longer under the influence of high temperatures. These rubber qualities have a service life of many years.

Several Polysur® versions are fully resistant to oils and greases, both mineral and vegetable. Very high concentrations of NBR rubber are used in these rubber mixtures, which counteracts hardening, swelling and blistering.



Belt structure with EP fabric

Rubber cover

Textile ply

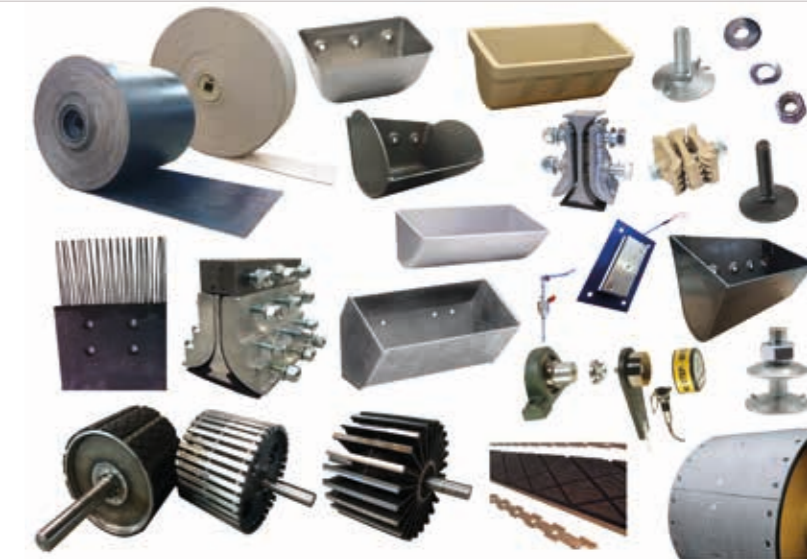
Skim rubber

poly

ADDITIONAL CRITICAL COMPONENTS FOR ELEVATORS

Our comprehensive product range is mainly based on the requirements of our customers. We have been optimising our products continuously since 1950 and the result is a unique range of supplementary components for elevators. We are therefore fully geared to market demand. Our stockholding strategy allows us to supply quickly anywhere in the world, while our broad experience in the field of logistics ensures that export, including documentation and handling, is always properly organised.

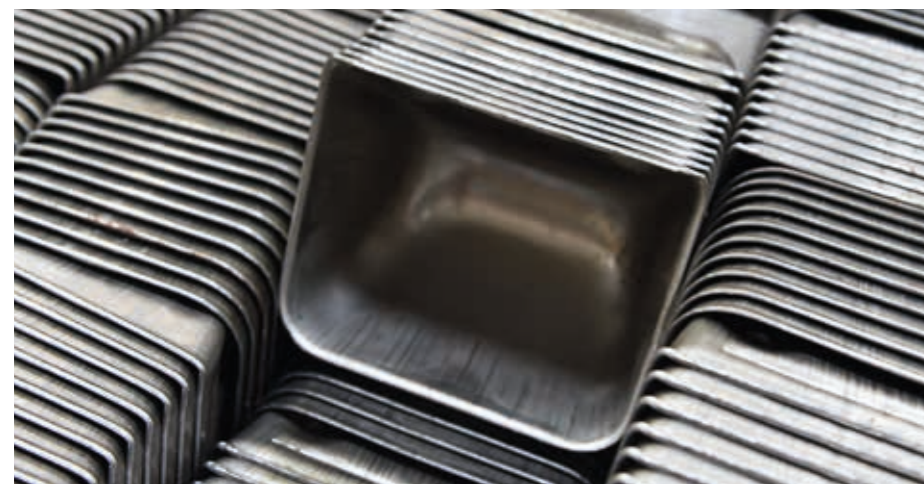
DOWNLOAD THE
TECHNICAL DATASHEETS
FOR THESE
COMPONENTS ON
WWW.MULLERBELTEX.COM



ELEVATOR BUCKETS

Our wide range of elevator buckets includes:

- welded versions in accordance with the DIN standard
- European models (Columbus, Starco and Super Starco) in pressed steel, stainless steel, HDP, polyurethane or nylon
- the American range of Maxi-Lift® plastic elevator buckets made of HDP, polyurethane or nylon
- special buckets in welded or plastic versions for processing minerals and for particularly challenging conditions



ELEVATOR BOLTS

Elevator buckets are fitted using specially designed fastening hardware. These elevator bolts come standard with a concave washer and nut, or optionally with a flat washer and/or locknut. Our elevator bolts come in 100-piece packs and are available ex-stock in bare steel, stainless steel or zinc-plated steel. Most of the elevator bolts are in accordance with DIN 15237 and are in stock in the sizes M6, M7, M8, M10 and M12. We also supply other non-standard sizes and versions, such as Norway and Sabre-Tooth elevator bolts with UNC or metric threads.

ELEVATOR BELT FASTENERS

The connection is the weakest link in an elevator belt, which is why belt fasteners deserve special attention. Mechanical belt fasteners are the best way to make elevator belts endless. They reduce wear and tear and offer a higher degree of reliability than overlapping the belt. Mechanical belt fasteners are applied to withstand the friction and clamping forces that are released while the elevator is operating. Muller Beltex supplies various belt fasteners.

DRIVE AND RETURN PULLEYS

Elevator drive and return pulleys are constructed to suit the elevator belt and the kind of product that is being processed. From drive pulleys and cage pulleys to wing pulleys: our engineers take care of the entire process, from drawings to implementation. To ensure that the elevator belt runs properly on the pulleys, special attention is paid to the convexity of the tread, the structural strength, axle mountings and static balancing.

PULLEY LAGGING

A good pulley lagging is absolutely essential for friction between the elevator belt and the drive pulley. A good lagging prevents the elevator belt from slipping and reduces wear. A pulley lagging that is easy to replace, like Slide-Lag, is welded onto the surface of the drive pulley, or rubber with a diamond profile is bonded to the surface using a vulcanisation process. The rubber version is also available in food-grade quality and comes in white or blue. If a rubber pulley lagging does not suffice, for instance at very high temperatures, we apply steel segments with a ceramic or sintered nickel plating.

MULLER BELTEX OFFERS MORE

Muller Beltex's full product and knowledge portfolio includes a comprehensive package of high-quality components for the bulk and process industry. We can supplement our high-grade components for elevators to form a total solution, from engineering to fitting, to get your bulk handling and processing equipment running optimally. Complementary products from Muller Beltex:

- process monitoring systems
- abrasion-resistant polyurethane liners
- conveyor belts and components
- parts for sifters and screens
- engineering, advice and supervision



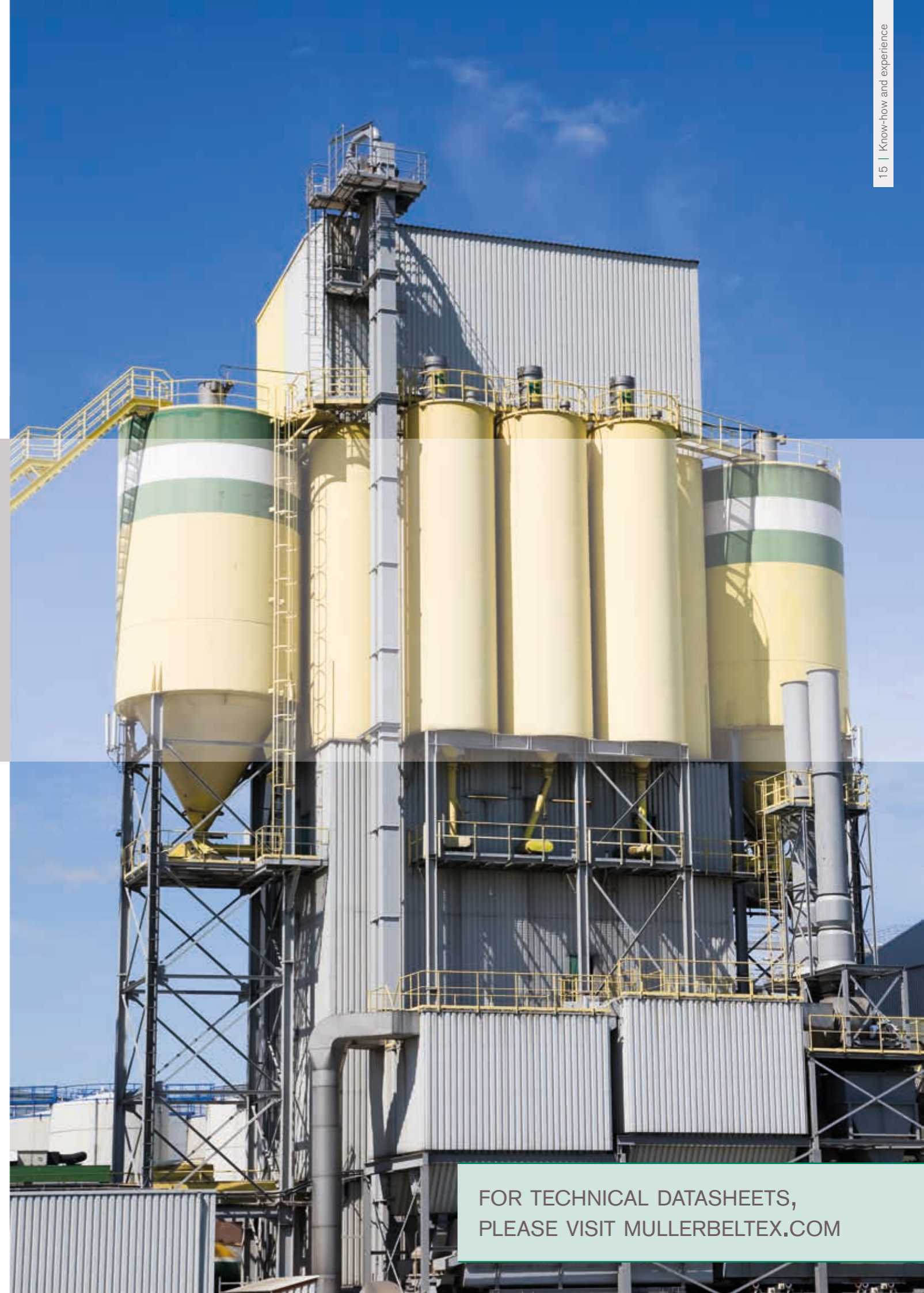
A CUSTOMISED
SOLUTION
FOR EVERY
APPLICATION

PROCESS MONITORING SYSTEMS

Moving elevator components can be monitored. With our extensive range of 'fail-safe' components, we provide a customised monitoring system in line with the latest ATEX guidelines. We support and advise you from plan to completion. We have developed the entire component range from a quality and safety perspective and it includes: Rub-Block misalignment sensors, bearing temperature sensors, RPM monitors, a PLC Alarm Interface Board, transmitters, connections, assembly and field wiring.

ENGINEERING, ADVICE AND SUPERVISION

In addition to a comprehensive range of high-grade components for elevators, we also offer engineering, advice and supervision services. By involving Muller Beltex at an early stage, we can offer you the right solution based on our broad experience and know-how. If you want to upgrade your existing elevators or construct new elevators, we can advise you, help you with engineering questions or even provide supervision on-site.



FOR TECHNICAL DATASHEETS,
PLEASE VISIT MULLERBELTEX.COM

MULLER BELTEX
VISION,
EXPERTISE
& QUALITY



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