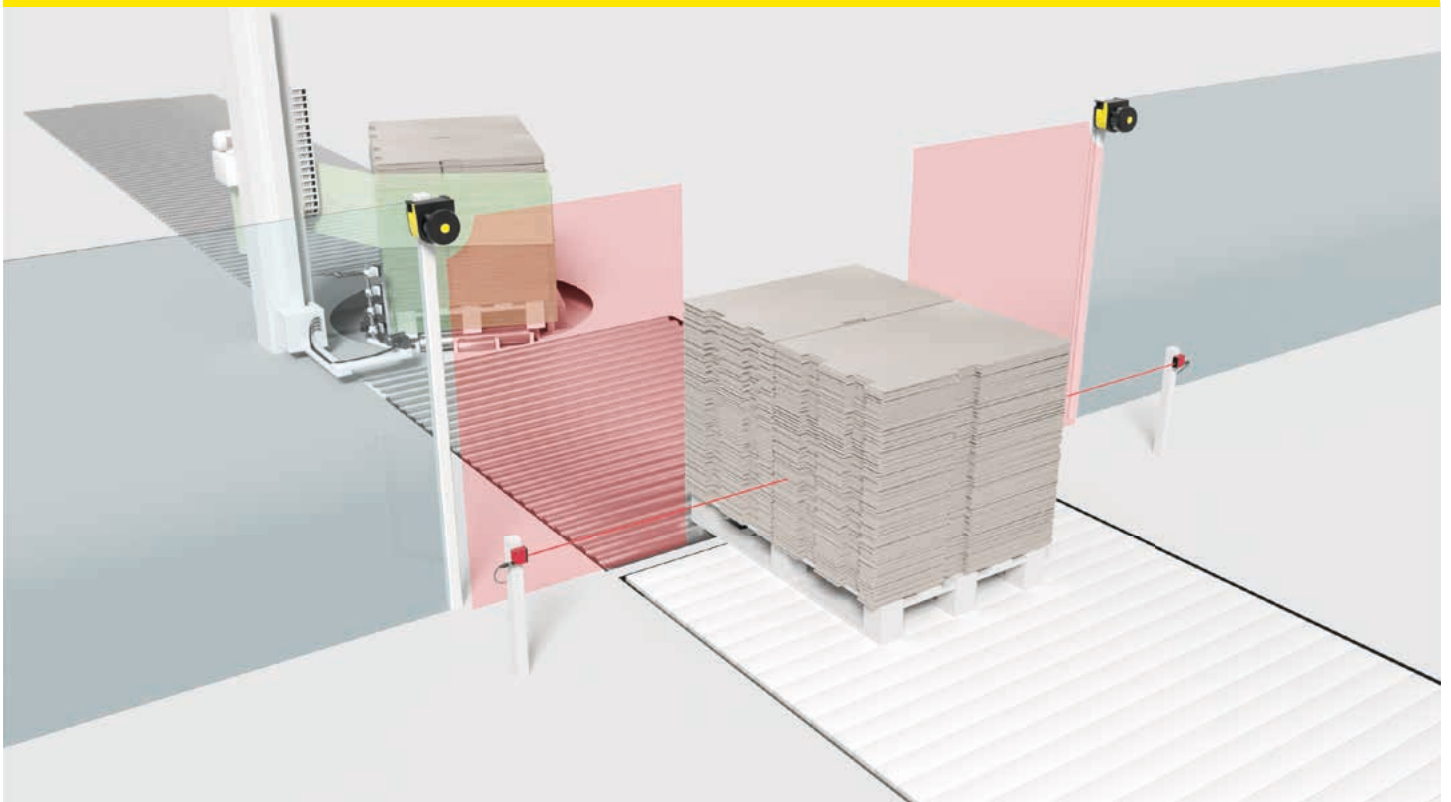


## Safety Solutions

### Access guarding with dynamic format adaptation

#### Safety at Leuze



#### Efficient material flow and maximum safety

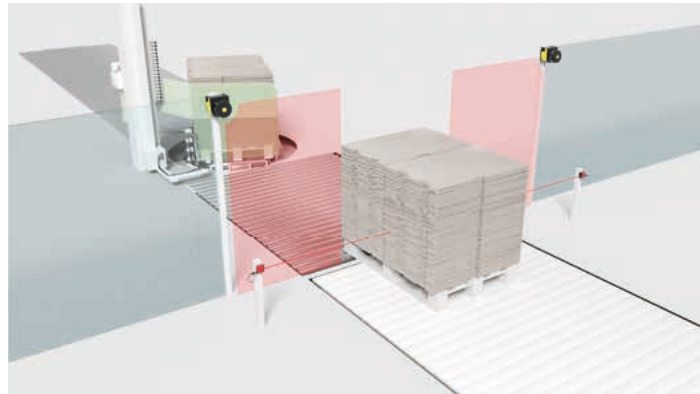
The increasing automation of machinery and systems places growing demands on the necessary safety concepts. Classic concepts, such as muting, are often pushed to their limits here. Our innovative safety solutions guarantee gapless safety, efficient material flow and high availability of your system, even with automated processes.

One challenge with access guarding on conveyor lines is the handling of different sizes and positions of the transported goods.

While it is possible to find integrated safety concepts for situations in which the size of the goods remains identical – for example, on the basis of muting functions – gaps in safety quickly arise if the width of the goods, the positioning of the goods on the pallet or the positioning of the pallet on the conveyor belt changes. This applies above all for the area alongside the transported goods. With its superior safety concept, the Leuze safety solution with dynamic format adaptation offers the right solution for these applications.

## Access guarding with dynamic format adaptation

**Requirement:** Pallets are automatically fed in and out by a conveyor belt. Access guarding should permit the transport of goods with changing width as well as with different positioning on the pallet and simultaneously prevent persons from running alongside.



**Solution:** Access guarding takes place via two vertically oriented safety laser scanners. Measuring sensors determine the width and position of the goods and send this information to the Leuze safety system. This appropriately adapts the protective field for passage of the goods.

### Operating principle

Two safety laser scanners produce a vertical protective field. Installed in front of the protective field on both sides next to the conveyor line are optical distance sensors that detect the width of the goods and their position on the conveyor line. The safety system uses this information to release an appropriate window in the protective field through which the goods can be transported interruption-free. Access remains safeguarded alongside the goods. After the goods have passed through the opened protective field window, the protective field is again reset to its original, closed state. The entire process is monitored for safety.

### Tailored to your needs

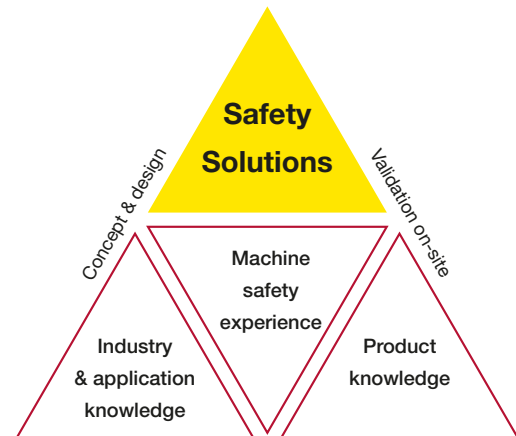
Our safety solutions are based on qualified safety concepts which, if necessary, can also be extended or created new. Every solution is individually tailored to your system layout and includes

- All necessary hardware and software components
- Engineering services, such as control programming and configuration according to project requirements
- Start-up support
- Validation of the safety function
- Full documentation



## Advantages for you at a glance

- Continuous monitoring of the entire access area
- Gapless safety during the transport cycles
- High reliability and availability
- Low service costs
- Optimum protection against manipulation
- Easily retrofittable



### System components and safety parameters

Safety sensors: RSL 400 safety laser scanner
Measuring sensors: ODS optical distance sensors
System control: Siemens SIMATIC S7
Leuze safety program
PL d in accordance with ISO 13849-1, SIL <sub>CL</sub> 2 in accordance with IEC 62061
2-channel safety output

### Your partner for professional safety solutions

For more than 30 years, we have been supporting safety-related applications in different industries by offering a broad range of products. Our certified safety experts have extensive experience in the design of safety concepts and have detailed knowledge of current norms and standards. Benefit from our know-how: In projects, our knowledgeable teams accompany you from the gathering of the requirements to the safety acceptance. They make sure that our solutions meet your requirements and ensure that the projects run smoothly.

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