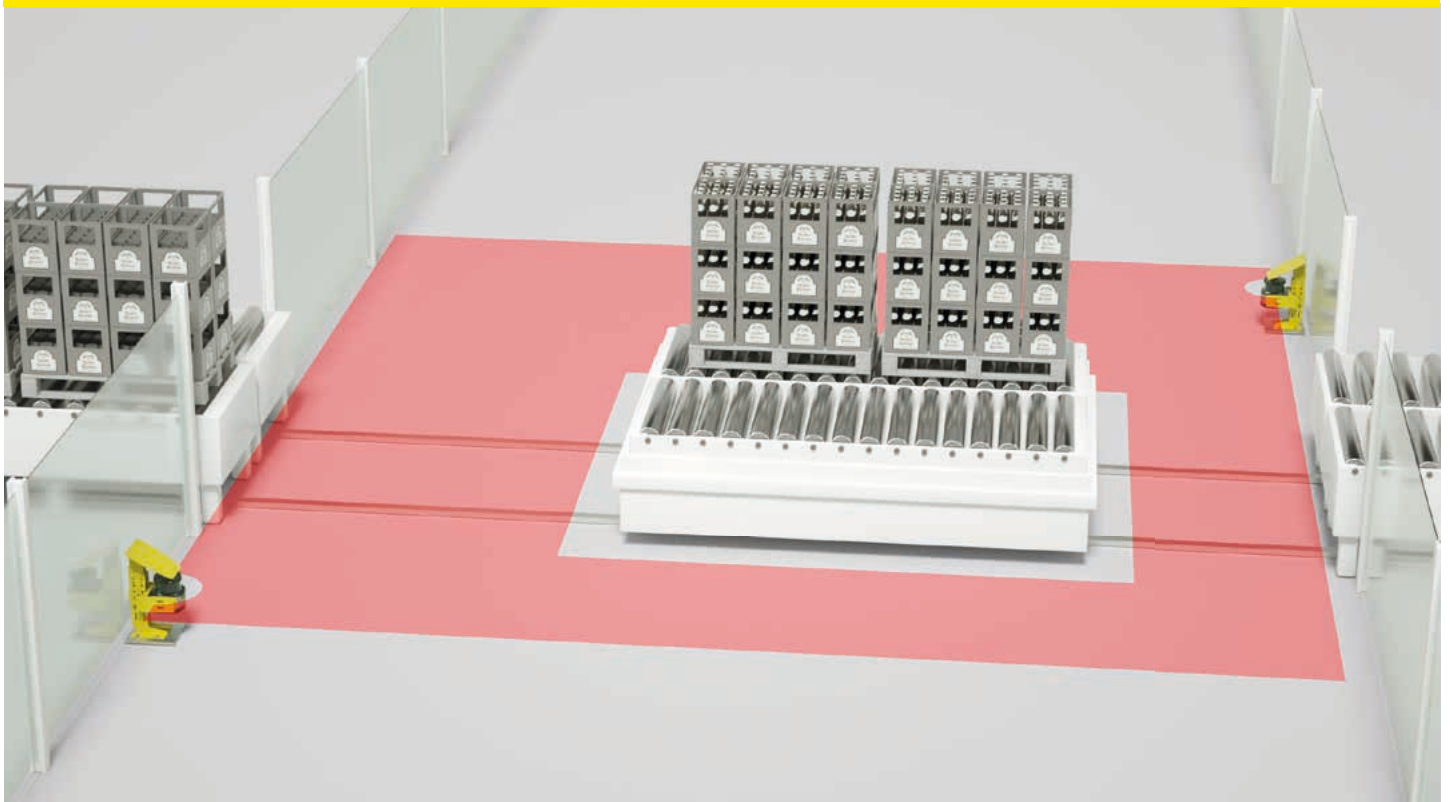


Safety Solutions

Area guarding of linear transfer cars

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.

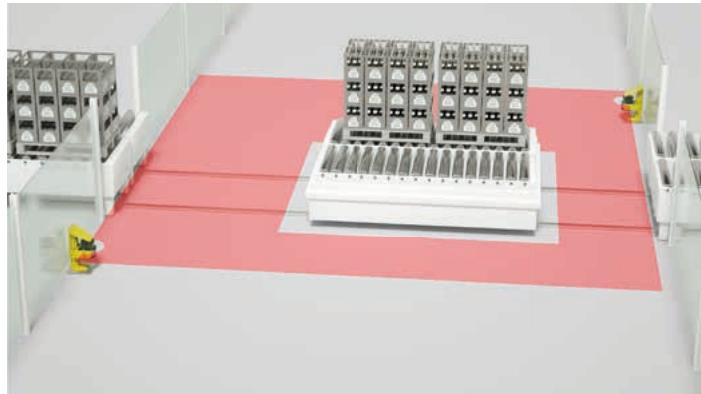
If the travel paths of railbound side-tracking skates cross, all movements during the travel process need to be taken into consideration when creating the safety concepts.

Even the necessary safety functions need to be considered holistically – before the release of travel, during travel and upon reaching the final position. If the necessary functions for area guarding are integrated in the side-tracking skate itself, this can have a considerable influence on the design of the skate. In addition, this requires an exact, on-board position determination. Our safety solution offers an autonomous alternative for these applications. It ensures gapless area guarding while simultaneously providing maximum process reliability.

Area guarding of linear side-tracking skates

Requirement:

The side-tracking skate crosses the travel path at regular intervals. During the entire movement process, the relevant part of the travel path is to be safeguarded against the entry of persons. The side-tracking skate should, however, be able to pass through the monitored area fully automatically.



Solution: The relevant part of the travel path is safeguarded by safety laser scanners. These use their protective fields to detect the entry and presence of persons. During the travel process, the contour of the skate is dynamically blanked out of the protective fields. The entire area thereby remains optimally protected at all times.

Operating principle

With their protective fields, the safety laser scanners protect the part of the travel path in which the side-tracking skate moves. They simultaneously detect the presence of persons and the position of the skate in the monitored area. During travel, the safety system uses this information to blank out the contour of the skate by changing over the protective fields from the monitored area. The monitored area is thereby fully protected and the safety level is maintained during the entire process.

Tailored to your needs

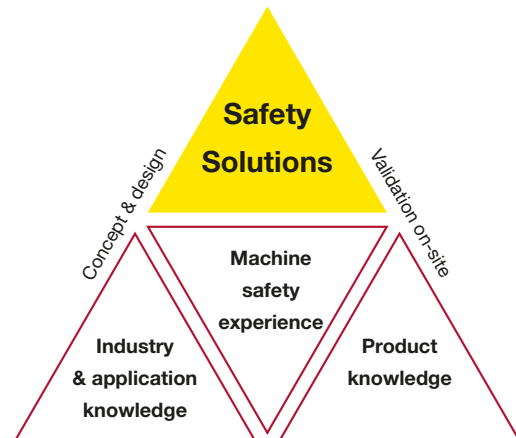
Our safety solutions are based on qualified safety concepts which, if necessary, can also be extended or created new. Every solution is individually tailored to your system layout and includes

- 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

- Monitoring for the entry and presence of persons
- Gapless safety during the entire process
- No restrictions during part transfer – even parts that protrude are possible
- Autonomous system with simple integration in the safety circuit of the primary control



System components and safety parameters

Safety sensors: RSL 400 safety laser scanner
System control: Siemens SIMATIC S7
Leuze safety program
PL d in accordance with ISO 13849-1, SIL _{CL} 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.