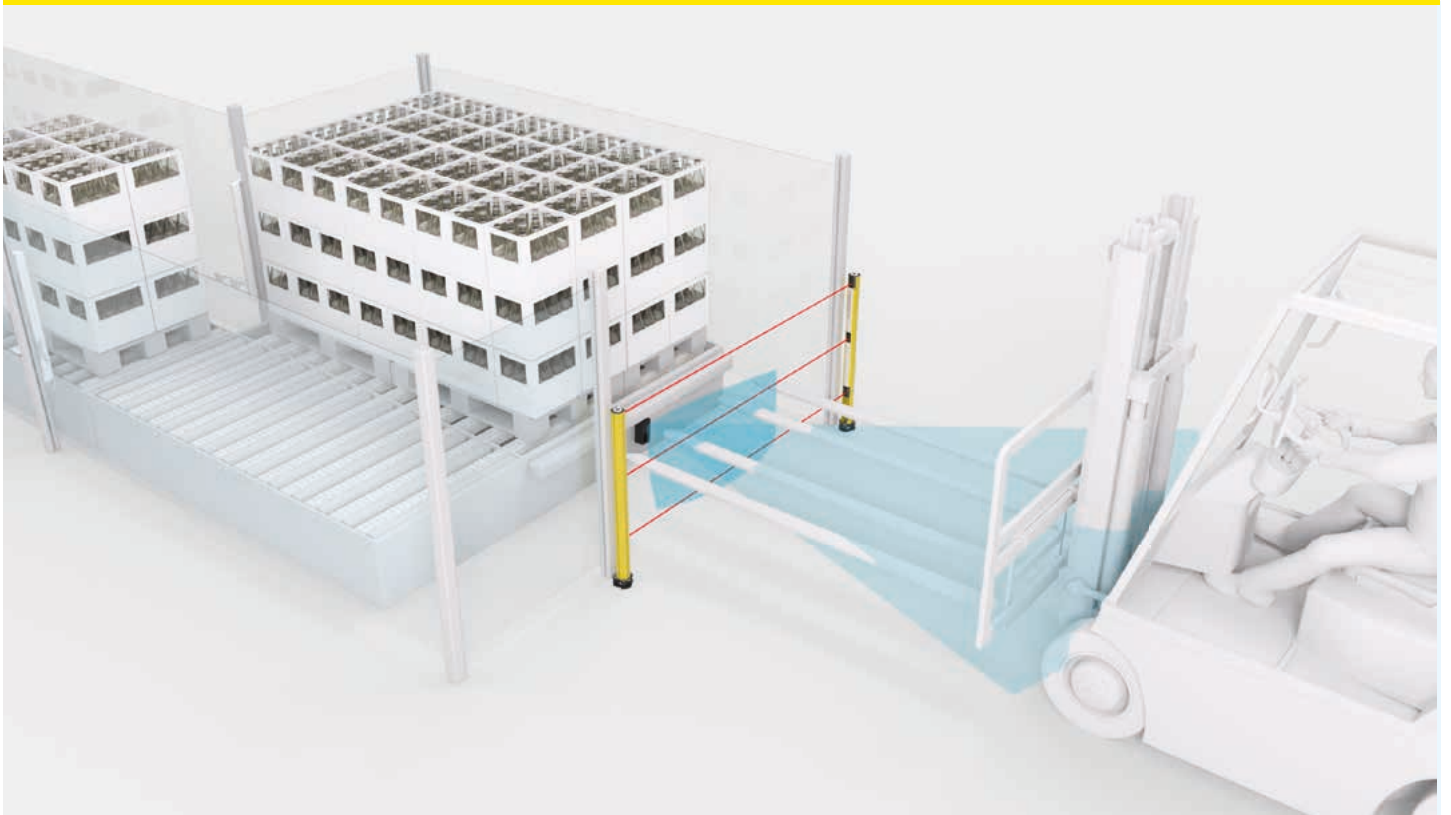


Safety Solutions

Access safeguarding at pallet grouper/degrouper

Safety at Leuze



Simple. Safe. Productive.

From risk assessment to validation: our safety solutions provide complete solutions for your systems. The innovative safety concepts of our expert teams ensure efficient material flow, gapless safety and high availability of your system. Even in applications where classic concepts are pushed to their limits. Always with legal certainty, CE certification and compliance with standards. This makes implementation extremely easy for you.

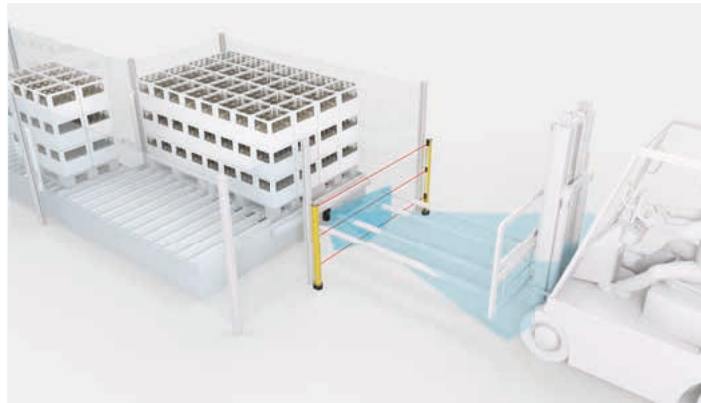
When corridor supply vehicles, such as forklift trucks, are working at a transfer station to a danger zone, it is important that access safeguarding can reliably differentiate between a forklift truck and personnel. Common safety concepts often have limited options and require significant structural or procedural changes in order to ensure safe operation.

In practice, this may result in compromises with correspondingly high residual risks, as well as a high degree of individual responsibility and discipline on behalf of the instructed operating personnel. For example, safety gaps may occur next to the forklift truck during transfer, the system may need to be operated at reduced speed during approach, or the system may need to be shut down entirely during the transfer.

Our safety solution meets all requirements with respect to gapless safety and efficient processes. Its safety concept is designed for manually operated forklift trucks, based on the revised standard EN 415-4 and does not require any operator intervention.

Access safeguarding at pallet groupers and degroupers

Requirement: Pallet groupers/degrouper must be safeguarded against access by persons. This requires reliable distinction between persons and the manually operated forklift trucks. To simplify the workflow and to minimize interruptions, an automatic system restart must be possible.



Solution: Access to the danger zone is safeguarded by a multiple light beam safety device. A sensor for detecting the forklift truck is installed behind this. By evaluating the sensor signals and their sequence, the safety system distinguishes between forklift trucks and persons. Automatic restart is possible.

Advantages for you

- Optimum system utilization through automatic restart of the system without manual operator intervention
- High reliability and availability with optimum protection against manipulation
- No components need to be installed in the floor
- Low service costs
- Simple integration in the safety circuit of the primary control

Operating principle

When the safety light curtain is triggered, the work process of the (un-)grouper is initially interrupted – irrespective of whether this is caused by a forklift truck or a person. If, however, the additionally installed radar sensor detects the presence of a forklift truck and the forklift truck correctly executes the expected process sequence, the safety system initiates automatic restart of the work process.



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System components and safety parameters

Safety sensors: MLD 500 multiple light beam safety device with device columns for floor mounting
Sensor for process monitoring: radar sensor
System control: MSI 400 safety control
Leuze safety program
PL d in accordance with EN ISO 13849-1, SILCL 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.

We support you throughout the project, from risk analysis to safety-related acceptance. Our teams make sure that our solution meets your requirements and ensure that your project runs smoothly.

Complete solutions – 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
- Full, CE-compliant documentation
- Start-up support
- Validation of the safety function



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