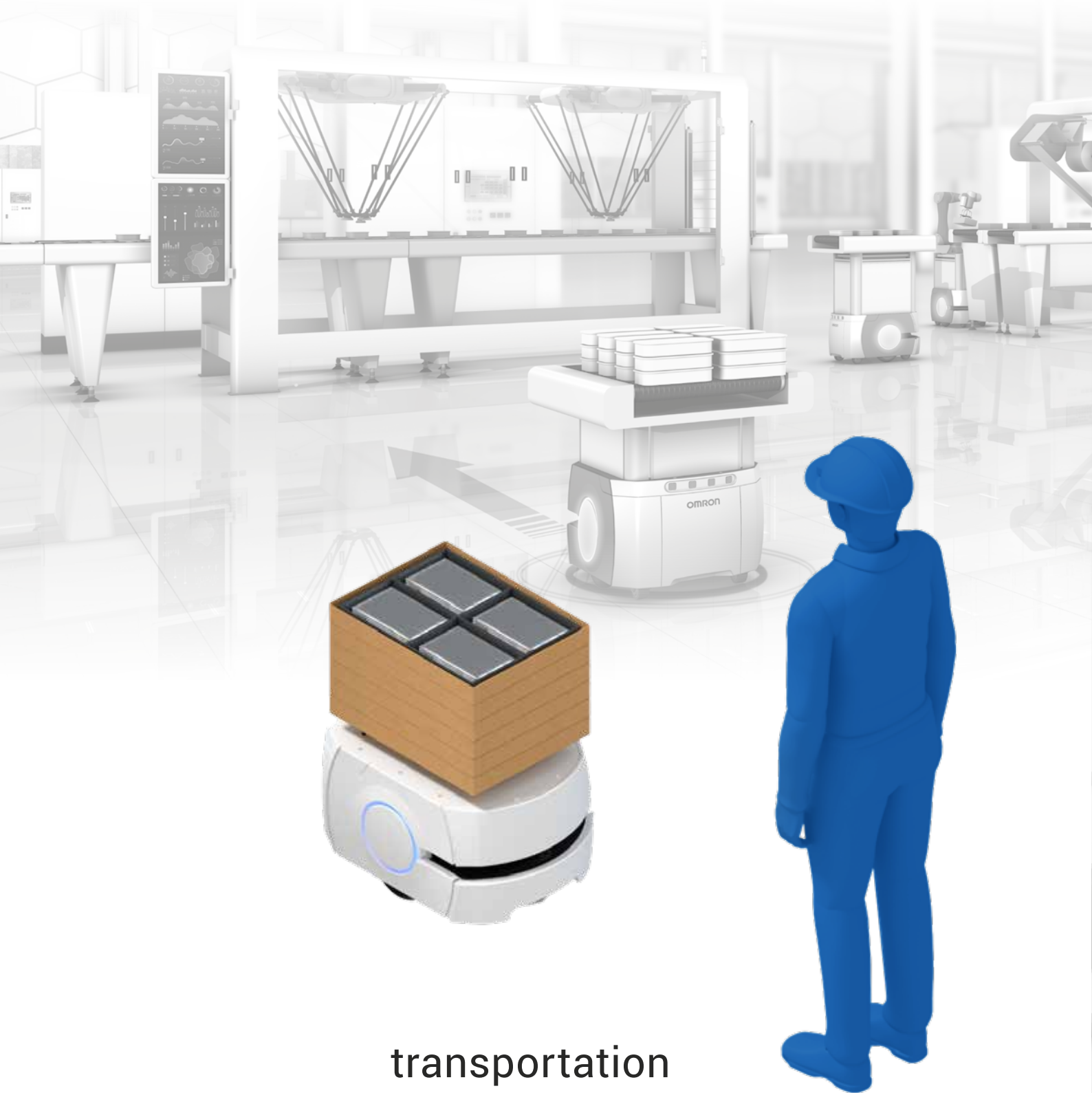


# Providing you the most efficient solution for safe automation



# Safety Automation Solutions for...

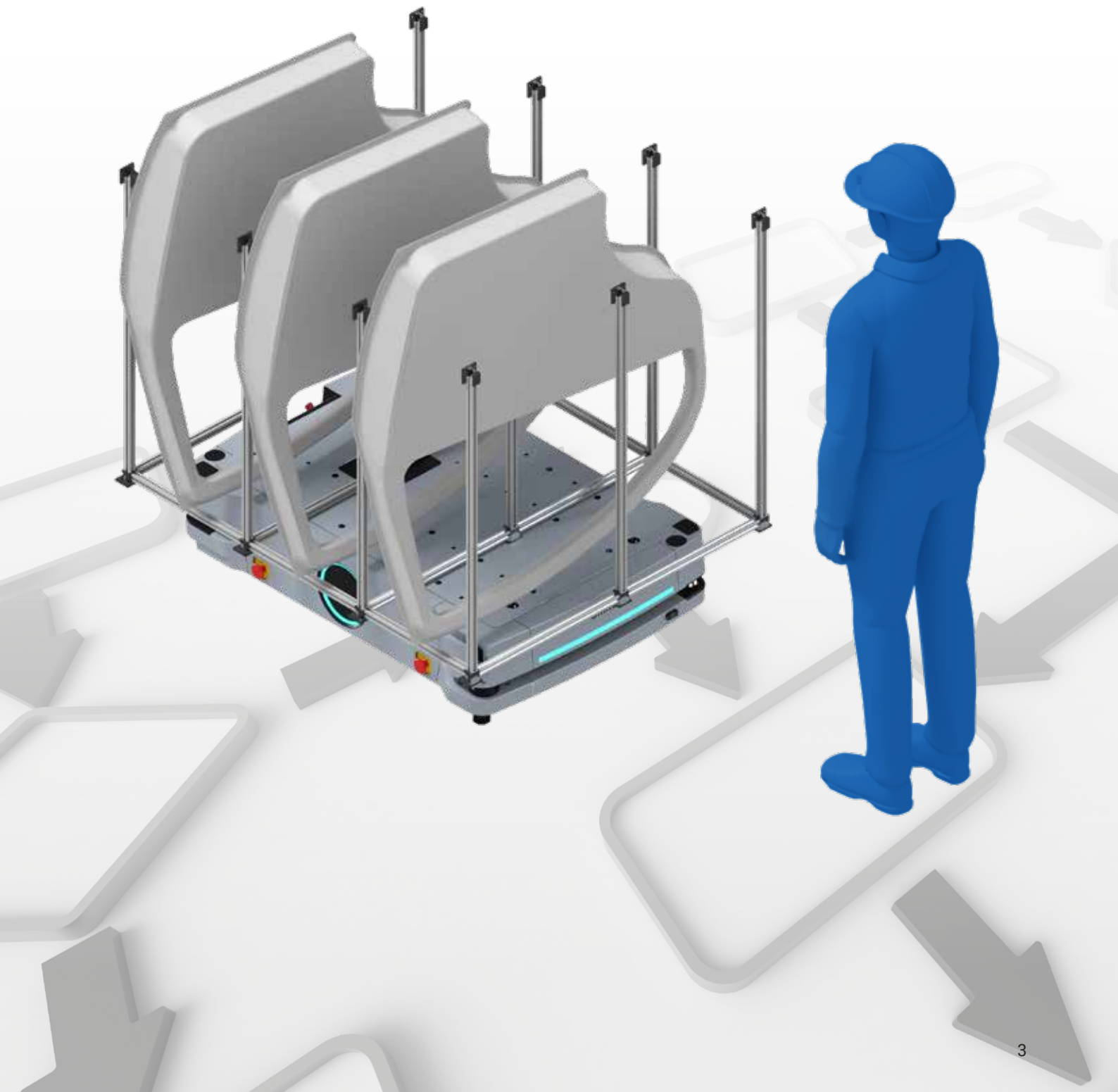


## transportation goods

All our transportation solutions fit for all regular or irregular shapes needs of transporting goods across your factory.

# Evolving mobile workstations

Flexible solutions for all manufacturing processes moving across and overlapping inside machinery.



Solution with pallets or boxes of different heights using Safety Light Curtains



Solutions with irregular goods shapes using vertical Safety Laser Scanner



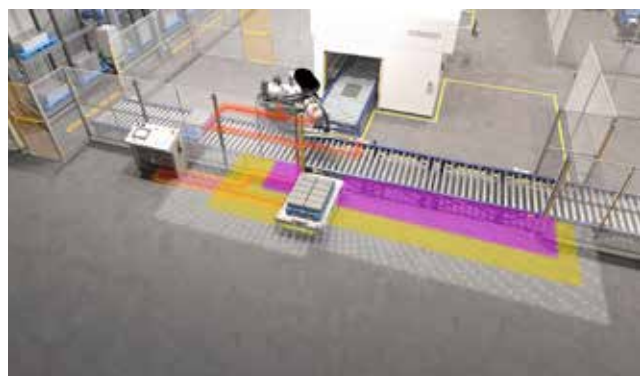
Solutions with irregular goods shapes using vertical and horizontal Safety Laser Scanner



Solutions for conveyor at the end of production lines



Solutions for conveyor in the middle side of production lines





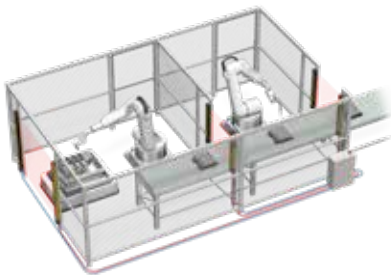
# Safety adaptive goods dynamic multilayer

Solutions with pallets of different heights using safety light curtains

- **Suitable applications:** Intralogistics for pallets, boxes or other regular shapes of goods
- **Main benefits/ advantages:** Safety light curtain height detection dynamically adapted to each situation
- **Safety conformity:** up to ESPE type 4 acc. to IEC EN 61496-1 and PLr 'e' acc. to EN ISO 13849-1 standards
- **Additional features:** IO-Link interface for measuring, on-line monitoring and diagnostics (IOT ready)

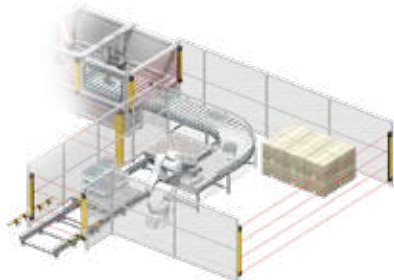
Suitable industries for:       

Application examples:



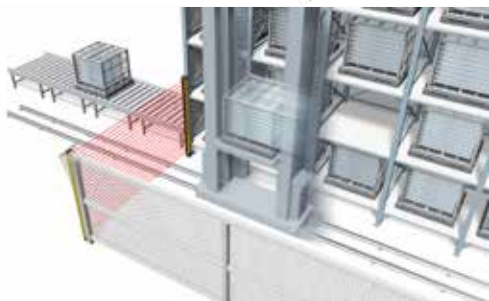
### Industrial Robot Cells

- Solution with High robustness adapted to harsh environments (up to IP67G/IP69K).
- Quick wiring and simple installation to reduce commissioning costs.
- Easy alignment and diagnostics to reduce the machinery downtime.



### Robot Palletizing

- Automatically adjusting for workpieces with various heights by dynamic muting function(1).
- A wide variety of muting accessories to simplify wiring and save space.
- Monitoring and operating data collection (IOT ready).



### Automated Warehouse

- Reduce installation time and facilitate the fine adjustment of beams for long-distance alignment.
- Reduce wiring and costs with active/ passive version by connecting only one side of the set to the control panel.



F3SG



E3ZS\_



D4N\_



D40\_ / D41\_



A4EG\_



A22NK\_



A22NE-P\_



NX-SL5\_

# Safety adaptive shapes profiler

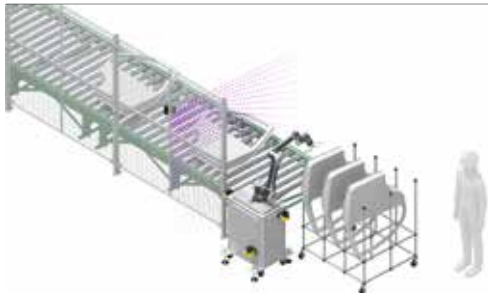
Solutions with irregular goods using vertical Safety Laser Scanner



- **Suitable applications:** Intralogistics mobile platforms with irregular shapes tops
- **Main benefits/ advantages:** Safety Laser Scanner pre-configured zones dynamically adapted to each situation
- **Safety conformity:** up to ESPE type 3 acc. to IEC EN 61496-1 and PLr 'd' acc. to EN ISO 13849-1
- **Additional features:** Ethernet IP data for profiling and 2D measurements and CIP-Safety standards

Suitable industries for:       

Application examples:



### Flexible manufacturing lines

- Easy adaptation and selection of the goods shapes and detection zones.
- Detection from any position.
- Human upper and lower limbs detection by selecting optical resolution, from 30mm.



### Multiple size of materials handling

- Covering all side gaps and object shadows and zero blind zones.
- From small to giant goods shapes sharing the same manufacturing line.
- Suitable for any multiformat or speed.



### Robot Palletizing

- Optimized solutions for narrow areas and reliable for palletizing operations.
- Safety solutions for any packaging type boxes, envelopes, bulk... etc.



OS3\_



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D4NS\_



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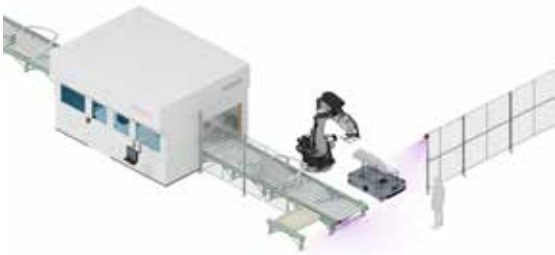
# Safety adaptive multiplane detection

## Solutions with irregular goods using Vertical and Horizontal Safety Laser Scanner

- **Suitable applications:** Mobile workstations for any machinery or robot cell
- **Main benefits/ advantages:** Safety Laser Scanner pre-configured zones dynamically adapted to each situation
- **Safety conformity:** up to ESPE type 3 acc. to IEC EN 61496-1 and PLr 'd' acc. to EN ISO 13849-1
- **Additional features:** Ethernet IP data for profiling and 2D measurements and CIP-Safety standards

Suitable industries for:       

### Application examples:



#### Automatic gate for mobile Workstation

- Safe positioning and Identification of the mobile workstation.
- Seamless production nondependent on the mobile workstation specifications.
- Efficiency in detection and identification of humans or mobile workstations.



#### Increase Human safety for palletizing operations

- Dynamic operator areas are ignored and fully synchronized with palletizing sequence to optimize the productivity.
- Full flexible safeguarding palletizing robot operations.



#### Mobile Workstations for Intralogistics

- Non-stop production in any machinery transition.
- Perfect integration between static and mobile machinery and tasks.
- Seamless human safety protection between machinery transitions.



OS3\_



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A22NK\_



A22NE-P\_



NX-SL5\_

# Safety adaptive goods conveying

## Solutions for Conveyor end production lines



- **Suitable applications:** automatic transfers from end line to mobile platforms
- **Main benefits/ advantages:** Safety Laser Scanner zones dynamically adapted to each situation and need
- **Safety conformity:** up to ESPE type 3 acc. to IEC EN 61496-1 and PLr 'd' acc. to EN ISO 13849-1
- **Additional features:** Ethernet IP data for profiling and 2D measurements and CIP-Safety standards

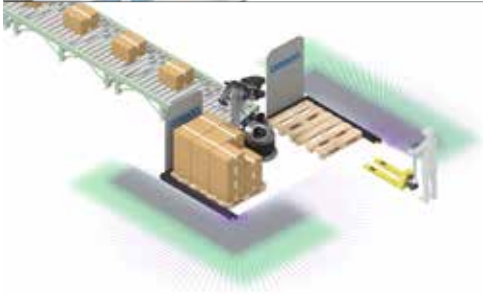
Suitable industries for:       

### Application examples:



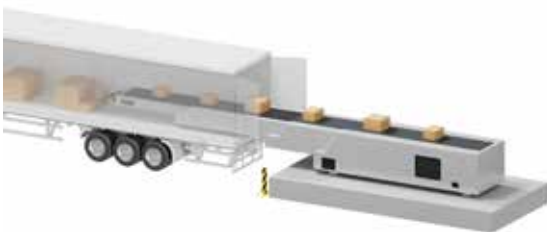
#### Special Machinery

- Non-stop production in any task or duty.
- Simplifies de Safety Functions signals across all the machinery.
- Multiply the safety sensors signals to various Safety Functions.



#### Partial fenceless palletizing

- Opening dynamically the way for the operator entrance in a sequence, to optimize the productivity.
- Monitoring the surroundings of palletizing robot operations.
- Optimizing your factory floor spaces.



#### Automatic loading

- Automatic piling multilayer of boxes, envelops, bulk, ...etc.
- Increase loading and unloading capabilities and saving activity time.
- Reduction of skilled manual workers.



OS3\_



E3ZS\_



D4N\_



D40\_ / D41\_



A4EG\_



A22NK\_



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NX-SL5\_





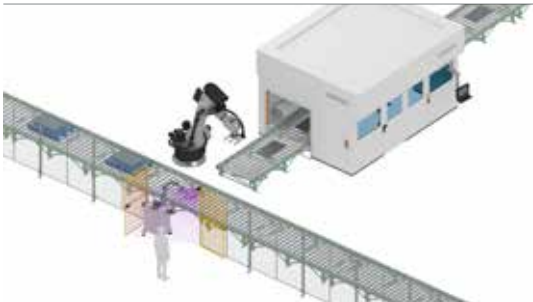
# Solutions for conveyor in the middle side of production lines

## Solutions for Conveyor side production lines

- **Suitable applications:** Flexible manufacturing insertions inline
- **Main benefits/ advantages:** Safety Laser Scanner zones dynamically adapted to each situation and need
- **Safety conformity:** up to ESPE type 3 acc. to IEC EN 61496-1 and PLr 'd' acc. to EN ISO 13849-1
- **Additional features:** Ethernet IP data for profiling and 2D measurements and CIP-Safety standards

Suitable industries for:       

### Application examples:



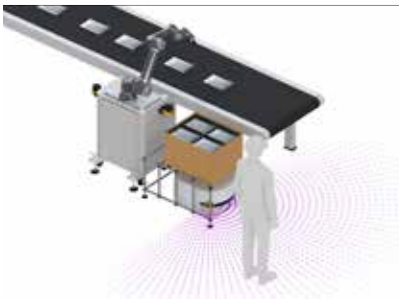
#### Flexible fencing opening for temporary additional stations

- Increasing flexibility and safety on static manufacturing lines, by adding temporary machinery safely.
- Combining physical fences and safety laser sensors, detecting the frame of the physical door long range and stable detection by high-power optical design.



#### Flexible detection of large zones

- Flexible detection and warnings of lower limbs in larger distances.
- All detection functionality in a single device.
- Optimal solution for a conveyor roller drawbridges clearances.



#### Inhouse logistics

- Flexible line end of automated solutions
- Flexible machinery production.
  - Sharing and optimizing the number of machinery in your assets.
  - Fully flexible, adaptive and safe production line end solutions.



OS3\_



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D40\_ / D41\_



A4EG\_



A22NK\_



D4SL\_



A22NE-P\_



NX-SL5\_

# Technical details:

F3SG\_



**Safety Light curtain – F3SG-SR series  
with intelligent connector (iTab)  
Software Configuration Tool -SDManager 3**

- Valid for all goods sizes/heights
- Dynamic muting function configuration ready out of the box
- All functionalities in the itab + Safety Light curtain



F3SG-SR



itab



SDManager 3

OS3\_



**Safety Light Scanner – OS3\_ series  
Software Configuration Tool**

- Valid for all shapes regular and irregular, 2 Dimension safety and measuring sensor
- Visible Area Beam Indication errors codes
- Easy maintenance and monitoring thanks to Ethernet/IP connection
- Safety and measurement in the same device



OS32c



CFT os3

E3ZS\_



**Safety Single Beam Sensor – E3ZS\_ series**

- Category 2 safety single beam sensor
- For detecting small gaps or objects safe positioning



NX-SL5\_



**NX-102series Programing Logic Controller  
NX-SL5series Safety Programing Logic Controller  
Software PLC + SPLC Sysmac Studio**

- Safety PLC with standard Function Block library. Quick, easy and flexible integration of production line safety
- Scalable series, from single machine to large-scale production lines
- Reusable Safety Program code
- Two different Safety networks in a single system
- Quick and easy safety program to reduce design and Validation time
- Efficient safety management and maintenance to minimize downtime



Sysmac Studio



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A22NE-P\_



**Emergency Stop Push Button device –  
A22NE-P / A22NE-PD series**

- Mechanical monitoring of detach the Pushbutton Part and the contacts bloc
- Reducing the Preventive maintenance at End User



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D40\_ / D41\_



**Compact Non-contact Door Switch –  
D40A / D41D series**

- Safety Sensor guard or positioning monitoring
- Compact size and easy report via PLC
- Safety sensor up to 30 units in daisy chain connection



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D4N\_



**Safety Door Switches –  
D4N\_ / D4B\_ / D4F\_ / D4NH series**

- Electromechanics interlock technology
- Including key to detect operators in the dangerous area
- Possible to connect with Safety Modules and SPLC's



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D4SL\_



**Safety Door Switches –  
D4NS\_ / D4SL-N\_ series**

- Electro mechanic interlock with head robustness and strong holding force
- Including key to detect operators in the dangerous area
- Possible to connect with Safety Modules and SPLC's



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A4EG\_



**Enabling switch Pushbutton –  
A4EG\_ / A4E\_ series**

- For single hand operation, and monitor the human attention and coordination with other actions
- Enabling switch allows when is pressed, to operate some dangerous parts of the machine



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A22NK\_



**Safety key selector switch –  
A22K\_ / A22NK\_ / A22TK\_ series**

- For in Machinery safety functions, such as Operator mode selector (,2 or 3 positions)
- Safety key sequence
- Safety hold key electrical and interlocking



*Would you like to know more?*

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