

PILZ
THE SPIRIT OF SAFETY

EN ISO 12100 Safety of machinery – General principles for design – Risk assessment and risk reduction

Application gives rise to a presumption of conformity with the fundamental requirements of the Machinery Directive that are thus covered.

EN 60204-1	Safety of machinery – Electrical equipment of machines – Part 1: General requirements
EN ISO 4413	Hydraulic fluid power – General rules and safety requirements for systems and their components
EN ISO 4414	Pneumatic fluid power – General rules and safety requirements for systems and their components
EN ISO 13649-1/2	Safety of machinery – Safety-related parts of control systems – Part 1: General principles for design – Part 2: Validation

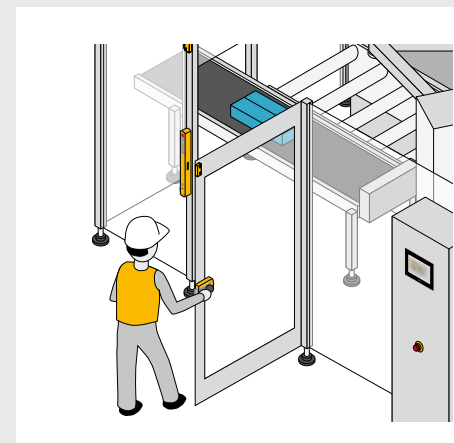
EN 62061	Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems
EN ISO 14118	Safety of machinery – Prevention of unexpected start-up
EN ISO 11161	Safety of machinery – Integrated manufacturing systems – Basic requirements

EN ISO 14120	Safety of machinery – Guards – General requirements for the design and construction of fixed and movable guards
EN ISO 13857	Safety of machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs
EN ISO 13854	Safety of machinery – Minimum gaps to avoid crushing of parts of the human body

EN ISO 13855 Safety of machinery – The positioning of protective equipment with respect to the approach speeds of parts of the human body

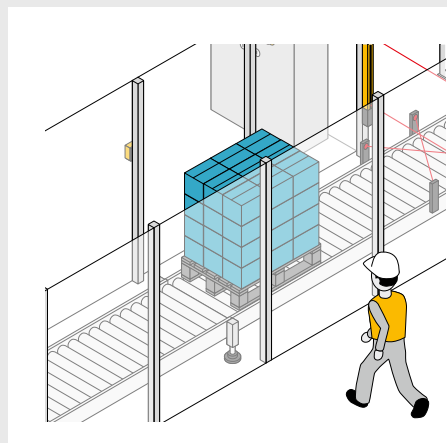
EN ISO 13850 Safety of machinery –
Emergency stop –
Principles for design

Flaps, hoods, doors, gates

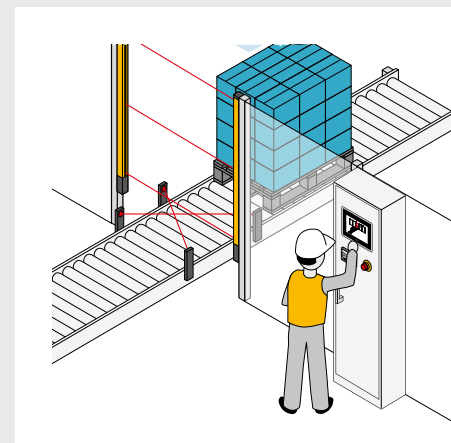


EN ISO 14119
Safety of machinery –
Interlocking devices associated with guards –
Principles for design and selection

Fences, barriers, trims: permanently mounted, only removable with tools



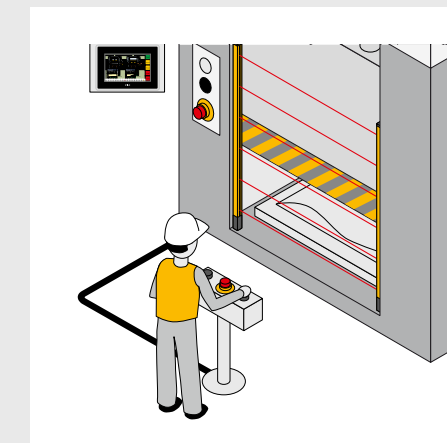
Light curtains, laser scanners, safe camera systems, pressure sensitive mats, rails, plates, rods, bumpers.



EN 61496-1
Safety of machinery –
Electrosensitive protective equipment –
Part 1: General requirements and tests

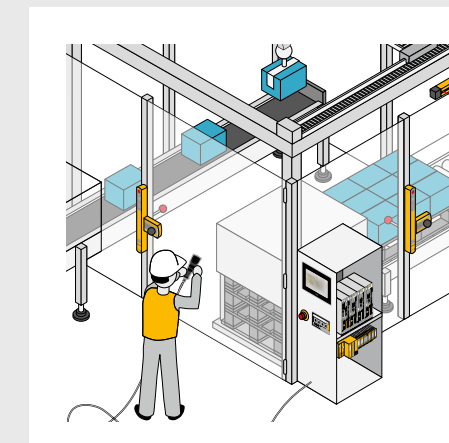
EN ISO 13856-1,-2,-3
Safety of machinery –
Pressure sensitive protective devices

Two-hand control devices



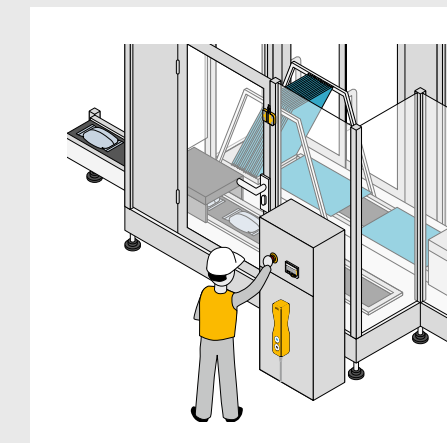
EN ISO 13851
Safety of machinery –
Two-hand control devices – Functional aspects –
Principles for design

Operating mode selection, enabling devices,
process parameter monitoring, safe drive functions

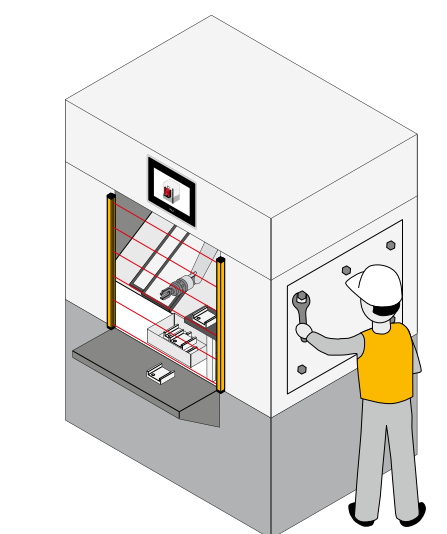
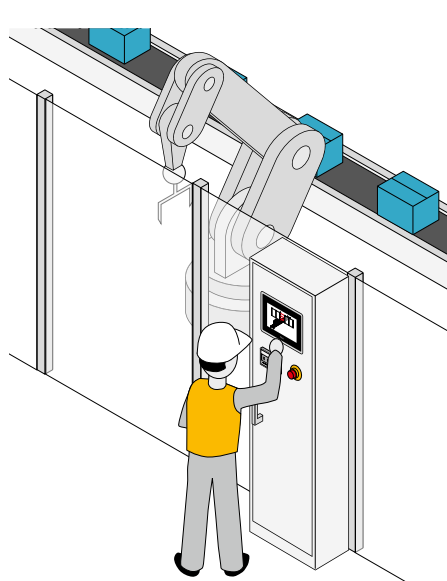


EN 61800-5-2
Adjustable speed electrical power drive systems –
Part 5-2: Safety requirements – Functional

E-STOP pushbuttons, rope pull switches,
foot switches



- ▶ Safety switches PSENmech, PSENmag, PSENcode
- ▶ Hinge switch PSENhinge
- ▶ Safety gate system PSENSlock, PSENmlock, PSENSgate
- ▶ Safety bolt PSENbolt



- ▶ Light curtains PSENopt, PSENopt Advanced, PSENopt slim, PSENopt II
- ▶ Camera-based protection systems PSENvip/ PSENvip 2
- ▶ Camera system SafetyEYE
- ▶ Laser scanner PSENscan
- ▶ Pressure-sensitive safety mat PSENmat



- ▶ Safe two-hand monitoring with PNOZsigma, PNOZ X, PNOZelog
- ▶ Safe small controllers PNOZmulti
- ▶ Automation system PSS 4000



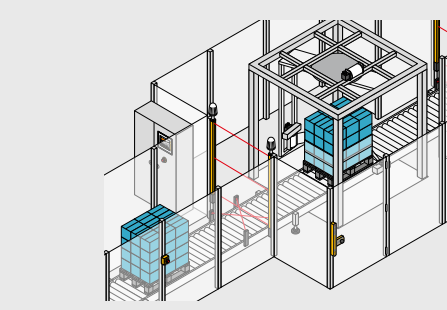
- ▶ Operating mode selector switch PITmode
- ▶ Manually operated control device PITjog
- ▶ Enabling switch PITenable
- ▶ Rotary encoder PSENenco
- ▶ Motion monitoring PMCprotego D
with integrated safety card PMCprotego S



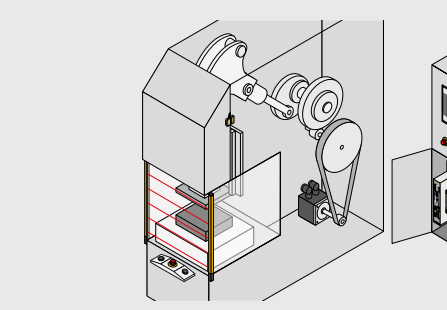
- ▶ E-STOP pushbuttons PITestop, PITestop active
- ▶ Rope pull switch PSENrope

Type C standards contain specifications for a certain machinery category.

e.g. EN 415-6
Safety of packaging machines –
Part 6: Pallet wrapping machines



e.g. EN ISO 16092-1:
Machine tool safety - Presses - Part 1:
General Safety Requirements



e.g. EN ISO 10218-2
Industrial robots – Safety requirements –
Part 2: Robot systems and integration

