SOFTTOOL ENGINEERING



2026 CATALOG

Light curtains and machine safety

Type 4 and Type 2 safety light curtains, perimeter protection and door locks for press brakes, punch presses, insertion machines and automatic cells.

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SOFT TOOL ENGINEERING

The machine stops before the hand gets there

Press brakes, punch presses and insertion machines are among the machines with the most accidents in the sheet metal industry. A well-selected and installed light curtain stops dangerous motion without slowing production.

For the machinery we sell

Press brakes, punch presses, insertion machines, laser cells with automatic loading and robotic welding.

Selection and installation

We calculate the safety distance, mount the curtain and integrate it with the machine control.

Up to Type 4 / PLe

The highest safety level of IEC 61496 and ISO 13849-1.

> **For a faster quote**
>
> Send us the machine type and model, the width and height of the area to protect and a photo of the front of the machine to **info@softooling.com**.

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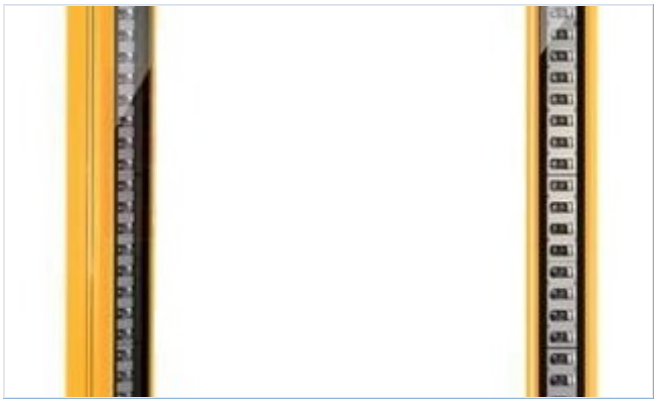
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01 Light curtains for presses and press brakes

They stop the machine before the operator's hand reaches the danger zone. For press brakes, mechanical punch presses, insertion machines and shears.



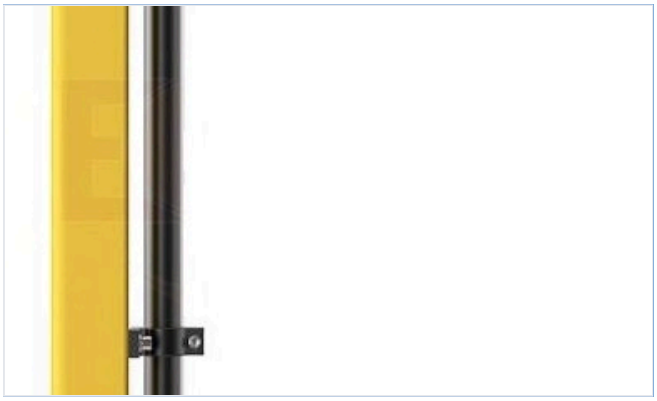
MODEL STE-ESV

Type 4 safety light curtain

High-safety-level curtain with redundant design and self-diagnosis, for machines where the operator works face-on: press brakes, insertion machines and presses.

- Type 4 (IEC 61496) and Cat. 4 / PLe (ISO 13849-1)
- Automatic or manual interlock reset
- Optical synchronization (wired optional)

Power supply	24 V DC ±20%, under 7 W
Beam spacing	10 o 20 mm
Resolution	15 o 25 mm
Protected height	140 to 1470 mm (16 to 148 beams)
Response time	≤ 2 × (N × 0.1 + 0.3) ms, N = number of beams
Outputs (OSSD)	PNP or NPN, up to 500 mA
Detection range	0.1 to 3 m
Housing	Aluminum, IP65, 33 × 38 mm section
Operating temperature	−10 to 55 °C
Service life (ISO 13849-1)	20 years



MODEL STE-ESA

Light curtain for punch presses and presses

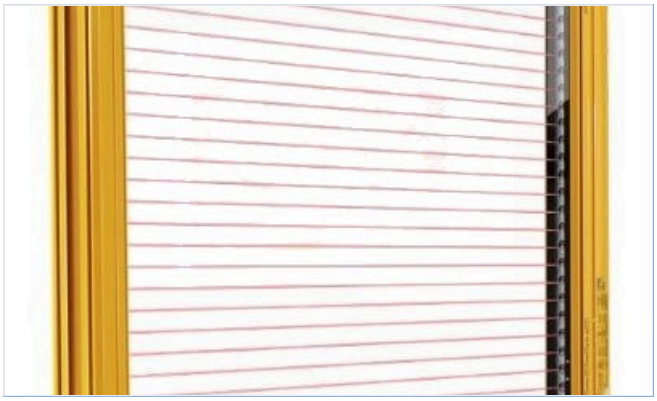
Barrier curtain with a 110–220 V AC relay controller, for mechanical punch presses, presses, shears and other hazardous machines. Several mounting options for harsh environments.

- Dual-circuit controller with relay output
- Self-diagnosis and vibration resistance
- Rotating, reinforced and anti-vibration brackets

Controller power supply	110 to 220 V AC 50/60 Hz, or 380 V AC; under 15 W
Output	Relay contacts, 5 A at 250 V AC / 30 V DC
Response time	≤ 20 ms
Beam spacing	10, 20 o 40 mm
Resolution	20, 30 o 40 mm
Number of beams	10 mm: 8 to 320; 20 mm: 4 to 160; 40 mm: 4 to 122
Detection range	From 0.1–0.5 m to 0.1–30 m
Housing	Aluminum, IP65, 35 × 50 mm section
Controller	External IP54 or internal IP20

02 Automatic cells and robots

Protection of loading areas, robot cells and equipment with automatic feeding.



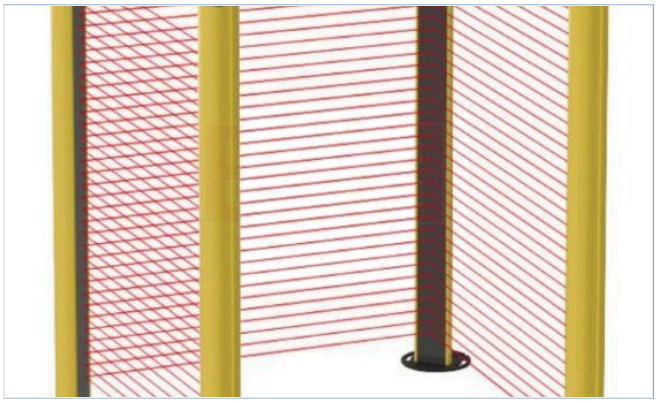
MODEL STE-EFP

Type 4 light curtain with no dead zone

Beams to the very ends of the housing, with no blind zone, to protect robot cells, automatic insertion machines and loading areas.

- Type 4 and Cat. 4 / PLe
- Internal redundancy with self-checking and cross-checking
- Dual redundant output

Power supply	24 V DC ±20%, under 5 W
Beam spacing	10, 20 o 40 mm
Resolution	14, 25 o 45 mm
Protected height	De 150 to 1590 mm
Outputs (OSSD)	PNP or NPN, 200 mA
Detection range	0.2 to 5 m o 0.6 to 12 m
Housing	Aluminum, IP65, 33 × 38 mm section
Service life (ISO 13849-1)	20 years



MODEL STE-ESQC

Multi-side perimeter light curtain

With a single pair of curtains and mirrors it protects several sides of the danger area: ideal for laser cells with automatic loading, gantries and robotic welding.

- Multi-side protection with one pair of curtains
- Long range, up to 30 m
- Two independent circuits with self-diagnosis

Power supply	24 V DC ±20%, under 5 W
Beam spacing	10, 20 o 40 mm
Resolution	20, 30 o 50 mm
Outputs (OSSD)	PNP or NPN, up to 200 mA
Detection range	0.1 to 30 m
Synchronization	Wired, resistant to ambient light
Housing	Reinforced aluminum, IP65

03 Compact curtains and door locks

Protection for small machines and for enclosure doors and safety fences.



MODEL STE-ESS

Compact Type 2 light curtain

Housing of only 25 × 25 mm for small machines or limited mounting space, such as insertion machines and marking stations.

- Type 2 (IEC 61496), Cat. 2
- Redundancy and self-diagnosis
- Optical or wired synchronization

Power supply	24 V DC ±20%, under 5 W
Beam spacing	10, 20 o 40 mm
Resolution	15, 25 o 45 mm
Protected height	De 95 to 2045 mm
Outputs (OSSD)	PNP or NPN, up to 200 mA
Detection range	Up to 10 m
Housing	Aluminum, IP65, 25 × 25 mm section



MODEL STE-SL

Door locks and switches

For enclosed laser cutting cabin doors, automatic cell fences and machine guards: the machine won't start with the door open.

- Compact electromagnetic lock with 500 N holding force
- 1300 N switches, IP67, with 2 or 6 contacts
- Cascade connection of up to 20 locks

STE-SLE21	Electromagnetic lock, 500 N, IP65 / IP67, cascade of 20 units
STE-SLR11	High-level lock with unique or universal coding, self-diagnosis
STE-SLM21	Door switch, 1300 N, multiple contacts, IP67
STE-SLM11	Compact door switch, 1300 N, 2 contacts, IP67

SOFTTOOL ENGINEERING

Which machine do you want to protect?

Send us your machine model and a photo, and we'll propose the curtain, brackets and integration.

EMAIL

info@softooling.com

WEBSITE

softooling.com

Images for reference only; specifications may change without notice. Final selection depends on the risk assessment and safety distance of each machine.