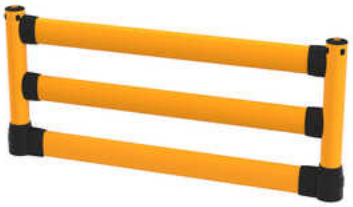
**BLACK BULL FLEX+ guardrail posts,** Polymer, black/yellow, L-Line with center underride guard

## Flexible L-Line impact protection railing with underride guard

The BLACK BULL FLEX+ L-Line impact protection railing with underride guard protects people, machines, racking and building structures wherever traffic and work areas not only need to be separated, but also secured on several levels. It is used along traffic routes, racking aisles, workstations, machine areas as well as transfer and buffer zones, picking and loading zones in warehouses, logistics and production environments.

The combination of guardrails and underrun protection creates a continuous line of protection - from the floor right into the work area. Instead of rigid barriers, the system relies on controlled absorption: It absorbs impact energy, distributes forces across the entire protective line and then returns to its original shape automatically. This means that the protective function and traffic guidance remain intact even after a collision.

## What happens in detail in the event of a collision



Crossbars, underrun protection & posts

The polymer crossbars form the continuous protective line of the L-Line. The underride guard provides targeted protection at ground level against forks, tires and collision damage, while the crossbars protect the area at standing height. The posts absorb the transmitted forces and ensure stability over the entire length. The result: reduced damage to vehicles, racking and machinery as well as increased personal and process safety.

Connections & junctions

The FlexLink connection technology ensures that forces are not applied at specific points, but are distributed evenly over the entire structure. Anchor points and the ground are relieved and the protection line remains permanently stable. Result: No loose posts, no cracking in the ground, long service life.

Base

The FLEX+ Base connects the posts to the Base ground anchor and serves as an impact-resistant outer shell. It protects the internal screw connection and prevents damage to the tires of forklifts and pallet trucks. Result: Protected fastening, less wear and tear, high suitability for everyday use.

Base ground anchor

The FLEX+ Base ground anchor combines robust anchoring in concrete with force-absorbing rubber dampers. This design reduces the load on the screw connection, protects the substrate and ensures a permanently stable attachment - even with repeated approaches.

## Multiple impacts? No problem.

FLEX+ is made for everyday use. The system remains functional, especially after repeated bumps. No permanent deformation. Durable plastic thanks to high elasticity. This significantly reduces downtimes and follow-up costs.

## Typical application scenarios for the FLEX+ L-Line crash barrier with underrun protection

This combination solution is particularly suitable for areas with increased protection requirements on several levels: Separation of traffic and work areas with additional floor protection. A typical example is a warehouse with high vehicle frequency, narrow paths and adjacent workstations. The FLEX+ L-Line

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impact protection railing with underrun protection creates clear, continuous protection lines, prevents underrun and collision damage and can be flexibly adapted or extended - seamlessly integrated into a holistic FLEX+ protection concept.

## Properties

| | |
|---|---|
| Application Area | Inside |
| Base Plate (Dimensions) | Ø850 × 6,4 mm |
| Certificate | PAS 13:2017 |
| Colour | yellow / black |
| Design | L-Line |
| Diameter | 204 mm |
| Drill hole spacing | 110 × 110 mm |
| Fixing Holes Diameter | 18 mm |
| Fixture | For doweling |
| Hazardous Goods | no |
| Height (Overall) | 1170 mm |
| Main Material | Polypropylene (PP) |
| Material 2 | Metal |
| Temperature Resistant | 0 - 54 ° |
| Under-run Plate (Height) | 200 mm |
| Under-run Plate (Material Thickness) | 6 mm |
| Underride guard (cross-section) | 203,2 × 101,6 mm |
| Underride guard (material) | Polypropylene (PP) |
| Weight (gross) | 23.47 kg |

## Accessories & Add-ons

| | Category | Text | Quantity |
|---|---|---|---|
| | Consists of | BLACK BULL FLEX+ Base center | 1 |
| | Consists of | BLACK BULL FLEX+ Base floor anchor | 1 |
| | Consists of | BLACK BULL FLEX+ concrete screw | 4 |
| | Consists of | BLACK BULL FLEX+ connector crossbar L-Line | 4 |

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| | Category | Text | Quantity |
|---|---|---|---|
| | Consists of | BLACK BULL FLEX+ Post L-Line center | 1 |
| | Consists of | BLACK BULL FLEX+ cover cap | 1 |

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