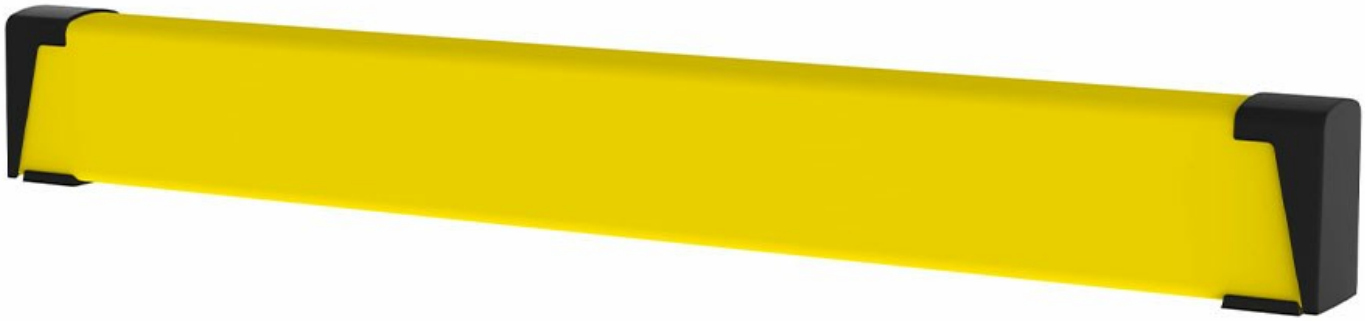
Floor Barrier

Designed to serve as a standalone solution, it provides safeguarding of building perimeters and vital infrastructure from the everyday risks of vehicle forks, pallets in transit, AMRs and AGVs, and other low-height hazards. X-Protect Floor Barrier can easily be combined with both Essential and Classic Impact and Pedestrian configurations to achieve protection from low height hazards in the system.



X-Protect Floor Barrier

Every warehouse, distribution center, and production facility faces the same challenge: forklifts, automated guided vehicles, and other equipment share space with people, racking, columns, and costly machinery. As a result, even a low-speed impact in the wrong area can lead to damaged infrastructure, operational downtime, and safety incidents. To reduce these risks, the Axelent X-Protect Floor Barrier serves as a reliable first line of defense at ground level. It defines boundaries, guides traffic, and absorbs impact before it reaches critical assets.

What X-Protect Floor Barrier Does

The X-Protect Floor Barrier is a standalone, single-rail, ground-level barrier system designed to absorb and deflect vehicle impacts before they reach your building structure, machinery, or equipment.

It sits low to the ground and runs along perimeters, machinery bases, and high-traffic zones to create a visible, physical boundary between moving vehicles and fixed infrastructure. Unlike heavy steel alternatives, it is built from a high-performance polymer that absorbs energy on impact rather than transferring force directly into the floor or the colliding vehicle.

It can also be easily combined with impact barrier and pedestrian barrier configurations to achieve protection from low-height hazards across the full system without additional floor work.

Key product facts:

- Available in three standard lengths: 69.7", 89.4", and 109.1" (center-to-center)

- Impact tested with a weighted forklift truck replica at Axelent's in-house testing facility
- Operating temperature range: 14°F to 104°F (-10°C to 40°C)
- Color: RAL 1018 yellow for high visibility in active environments
- Single-material polymer construction for straightforward recycling at the end of life

When Should You Use the X-Protect Floor Barrier?

The floor barrier is the right choice when your primary concern is ground-level, light-to-moderate impact protection. It is not designed for heavy-duty, high-speed forklift corridors. It is designed for the spaces around the edges of your operation where steady, reliable perimeter protection matters most.

Ideal applications include:

- Protecting building perimeters and exterior walls from glancing vehicle contact.
- Guarding the bases of machinery and fixed equipment in production or warehouse environments.
- Defining traffic routes and guiding vehicle flow to prevent impacts before they happen.
- Creating visible boundaries in e-commerce fulfillment centers and high-density pick/pack operations.
- Securing cold storage perimeters and the edges of temperature-controlled facilities.
- Supporting autonomous forklift and AMR navigation by establishing clear physical lane boundaries.
- Protecting charging infrastructure for autonomous mobile robots (AMRs), automated guided vehicles (AGVs), and forklifts.

Key Benefits of X-Protect Floor Barrier

Running a warehouse or production facility means managing risk at every turn. The right ground-level barrier does more than absorb an impact. It keeps your people safe, your infrastructure intact, and your operation moving. Here is what Axelent's floor barrier delivers:

- **Less downtime, faster recovery:** When a vehicle makes contact, only the affected rail needs to be swapped out. There is no section teardown, no waiting on custom fabrication, and no extended shutdown. Repairs happen at the component level, which means your facility gets back to full operation quickly.
- **Protection where it matters most:** Ground-level vehicle collisions are one of the most common causes of infrastructure damage in active warehouses. The floor barrier places a physical, impact-tested boundary between moving vehicles and the walls, machinery, and equipment that keep your facility running.
- **Installation that does not slow you down:** Rails slide between posts with minimal tools. No specialized labor, no lengthy setup process. Your team can have a section installed and operational in a fraction of the time it takes with traditional steel alternatives.
- **Built to grow with your operation:** Facility layouts change. New automation gets added. Zones get reorganized. The floor barrier's modular design means you can expand, reconfigure, or upgrade any section without touching your existing anchor points.
- **Strong performance at a competitive price:** Polymer barriers consistently outperform steel on total cost of ownership. Lower installation costs, lower repair costs, and a longer service life add up. Axelent's pricing is among the most competitive in the polymer barrier category.
- **Sustainability built in:** Each component is made from a single type of polymer, which makes the barrier fully recyclable at the end of life. When a part wears out, it does not go to a landfill. It goes back into the material cycle.
- **Supports a compliant, audit-ready facility:** A well-defined traffic separation system is a core element of OSHA and ANSI safety standards. The floor barrier helps Safety and EHS Managers demonstrate that the right physical controls are in place, not just on paper, but on the floor.

How It Works

The X-Protect Floor Barrier uses a slide-in rail system. Impact rails slot directly between floor-anchored posts. The posts are bolted to the floor with a shared anchor footprint that is compatible across the entire X-Protect product range.

When a vehicle makes contact, the polymer rail flexes and absorbs the kinetic energy of the impact. This deflection protects the floor anchoring from high load spikes, keeps damage contained to the replaceable rail, and reduces wear on both the barrier and the vehicle.

Impact test results at a glance:

- 69.7" length: absorbs up to 3,000 J, equivalent to a 5,500 lb vehicle at 3.4 mph
- 89.4" length: absorbs up to 3,000 J, equivalent to a 5,500 lb vehicle at 3.4 mph
- 109.1" length: absorbs up to 2,700 J, equivalent to a 5,500 lb vehicle at 3.2 mph

These tests are conducted using a weighted forklift truck replica at Axelent's state-of-the-art testing facility, applying repeatable real-world forces to every configuration.

The Modularity Advantage

One of the most common frustrations with traditional impact protection is that it locks you in. If your facility layout changes, you pull out the old system and start over. That costs time, money, and floor integrity.

The X-Protect system is built differently. Because all X-Protect products share the same floor anchor footprint, you can start with a floor barrier today and upgrade to a double impact barrier or add pedestrian rails later without a single new hole in your floor.

What modular design means in practice:

- Swap configurations as your facility grows or your traffic patterns change
- Replace individual damaged rails at the component level without touching the posts
- Extend existing runs by adding rails and posts to your current layout
- Combine with Essential or Classic Impact and Pedestrian configurations for protection at multiple heights
- Integrate with the X-Guard machine guarding system for facilities that need both impact protection and machine perimeter guarding
- Reduce the total cost of ownership because you are replacing components, not entire systems

This is especially valuable in facilities that are growing or reorganizing. Automated warehouses, fulfillment centers, and logistics operations rarely stay static. Your barrier system should not have to either.

Technical Specifications at a Glance

The floor barrier is available in multiple rail lengths to suit a wide range of installation widths. Key specification highlights:

- Available center-to-center rail lengths from 19.7" up to 118"
- Requires only two fixings per section, even for spans up to 109.1"
- Impact tested at up to 2,700 to 3,000 J equivalent energy, depending on configuration
- Tested against loads equivalent to a 5,500 lb vehicle at 3.2 to 3.4 mph, and an 11,000 lb vehicle at 2.3 to 2.4 mph
- 90° deflection of 7.9" (200mm) at 69.7", 9.5" (240mm) at 89.4", and 10.6" (270mm) at 109.1"
- Operating temperature range: 14°F to 104°F (-10°C to 40°C)
- Compatible with the full X-Protect post and rail ecosystem

Full test data and article numbers are available in the X-Protect technical specifications document. Contact your Axelent representative for configuration guidance specific to your facility.

Frequently Asked Questions

Can the Floor Barrier be used in cold storage environments?

Yes. The X-Protect system is rated for operating temperatures between 14°F and 104°F (-10°C to 40°C), making it suitable for refrigerated and temperature-controlled warehouse environments.

Can the Floor Barrier integrate with other X-Protect configurations?

Yes. Because all X-Protect configurations share the same post and anchor system, you can combine the Floor Barrier with Essential and Classic Impact Barrier and Pedestrian Barrier configurations on the same posts without additional

floor work.

Is the Floor Barrier OSHA compliant?

The X-Protect system is designed to support OSHA and ANSI safety guidelines related to the physical separation of pedestrian and vehicle zones. For specific compliance questions related to your facility, consult with your EHS Manager or a qualified safety professional.

Models

Impact rails 9 articles

ARTICLES / DESCRIPTION	HEIGHT (MM)	LENGTH (MM)	CC (MM)	COLOR
 **RCI1-027-0050** Impact rail		270	500	Zinc Yellow (RAL 1018)
 **RCI1-047-0070** Impact rail		470	700	Zinc Yellow (RAL 1018)
 **RCI1-067-0090** Impact rail		670	900	Zinc Yellow (RAL 1018)
 **RCI1-077-0100** Impact rail		770	1000	Zinc Yellow (RAL 1018)
 **RCI1-127-0150** Impact rail		1270	1500	Zinc Yellow (RAL 1018)
 **RCI1-177-0200** Impact rail		1770	2000	Zinc Yellow (RAL 1018)
 **RCI1-197-0220** Impact rail		1970	2200	Zinc Yellow (RAL 1018)
 **RCI1-227-0250** Impact rail		2270	2500	Zinc Yellow (RAL 1018)
 **RCI1-277-0300** Impact rail		2770	3000	Zinc Yellow (RAL 1018)

End covers 2 articles

ARTICLES / DESCRIPTION	HEIGHT (MM)	LENGTH (MM)	CC (MM)	COLOR
 **FCE3-022-I100-10** Floor barrier end - 10 pack	221			Graphite Black (RAL 9011)
 **FCE3-022-I100-2** Floor barrier end - 2 pack	221			Graphite Black (RAL 9011)

Related products



X-PROTECT IMPACT PROTECTION

Impact High with Floor Barrier

The Impact High with Floor Barrier is an innovative solution designed to offer pallet racking end-frame protection and perimeter security within your workspace. This system combines the benefits of...

14 articles



CLASSIC PEDESTRIAN

Pedestrian with Floor Barrier

Improve your workspace's safety and pedestrian and traffic flows with the configuration Pedestrian with Floor Barrier. Designed to efficiently segregate pedestrian walkways from vehicular routes, i...

21 articles

X-PROTECT

Technical Information

X-Protect components

These are the building blocks of our modular Impact Protection range.

BARRIERS & RAILS

Pedestrian Rails



Width x Height:
68 × 72 mm | 2 11/16" × 2 27/32"
Length:
270 - 1770 mm | 10 5/8" - 69 11/16"

Impact Barriers



Width x Height:
116 × 220 mm | 4 9/16" x 8 21/32"
Length:
270 - 2770 mm | 10 5/8" - 109 1/16"

POSTS & BOLLARDS



Classic
4 connection sides
Width:
200 mm
7 7/8"
Height:
350 – 1160 mm
13 13/16" – 45 11/16"

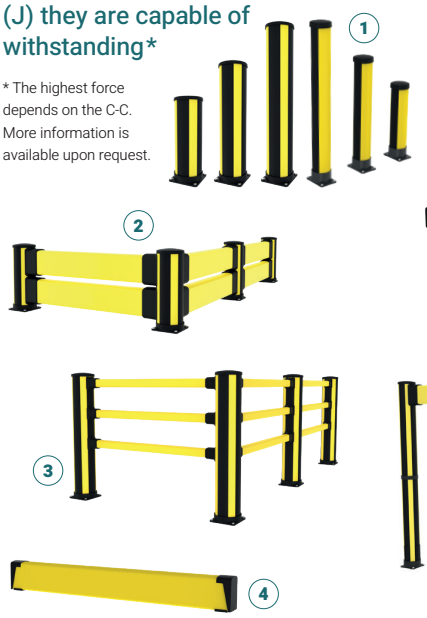
Essential
2 connection sides
Width:
132 mm
5 3/16"
Height:
620 – 1170 mm
24 7/16" – 46 1/16"

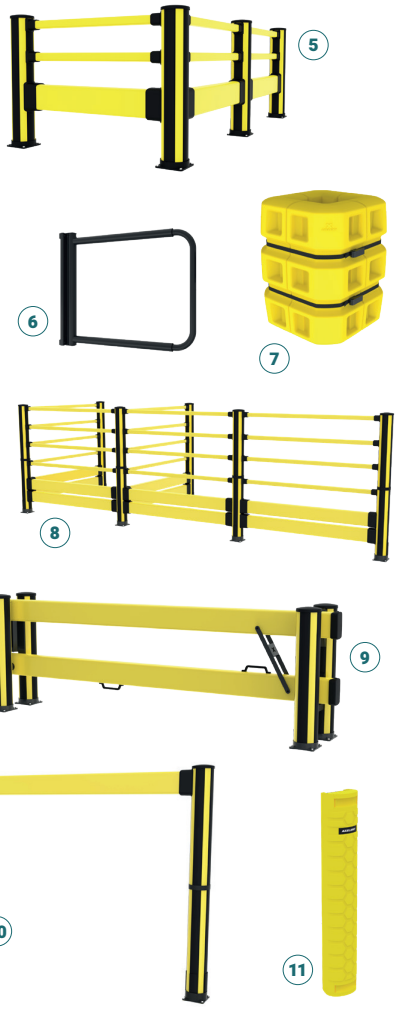


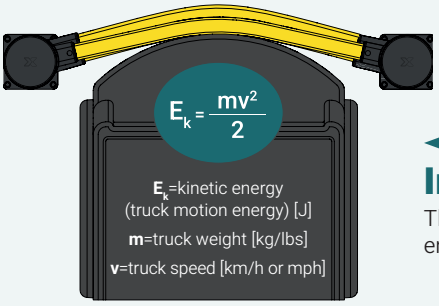
X-Protect Standard Configurations

+ the highest impact energy (J) they are capable of withstanding*

* The highest force depends on the C-C. More information is available upon request.







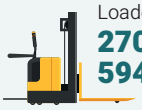
Impact testing

This is how we calculate the energy from a vehicle impact.



Loaded weight
3600 kg / 7930 lbs

Speed	Load
6 km/h | 3.7 mph	5020 J
8 km/h | 5 mph	8880 J
12 km/h | 7.5 mph	19960 J



Loaded weight
2700 kg / 5940 lbs

Speed	Load
6 km/h | 3.7 mph	3770 J
8 km/h | 5 mph	6660 J
12 km/h | 7.5 mph	14970 J



Loaded weight
2100 kg / 4620 lbs

Speed	Load
6 km/h | 3.7 mph	2930 J
8 km/h | 5 mph	5180 J
12 km/h | 7.5 mph	11670 J

Component Colours

RAL 1018 RAL 9011

Operating temperature

-10°C → 40°C

1. **Bollards**
   - Classic | 5220 J
   - Essential | 1500 J
2. **Impact Barriers**
   - Impact | 4500 J
   - Impact High | 6200 J
   - Double Impact Low | 7700 J
   - Double Impact High | 7000 J
3. **Pedestrian Rails**
   - Pedestrian | 5000 J
   - Essential Pedestrian | 2250 J
   - Essential Pedestrian 2 rail | 1700 J
   - Essential Pedestrian | 2250 J
4. **Floor Barrier** | 2250 J
   - Can be used both with Impact & Pedestrian configurations or as stand-alone protection.
5. **Pedestrian Rails + Impact Barriers**
   - Pedestrian + Impact | 6700 J
   - Pedestrian + Impact High | 8000 J
   - Pedestrian + Double Impact | 8300 J
   - Essential Pedestrian + Impact High | 3100 J
6. **Pedestrian Gate** | 0 J
7. **Column Guard** | 1800 J
8. **Topple Barriers**
   - Pedestrian | 5250 J
   - Impact | 6200 J
9. **Dock Gate** | 10200 J
10. **Height Restrictors**
    - Goal Post | 4200 J
    - Height Guard
11. **Upright Protector**