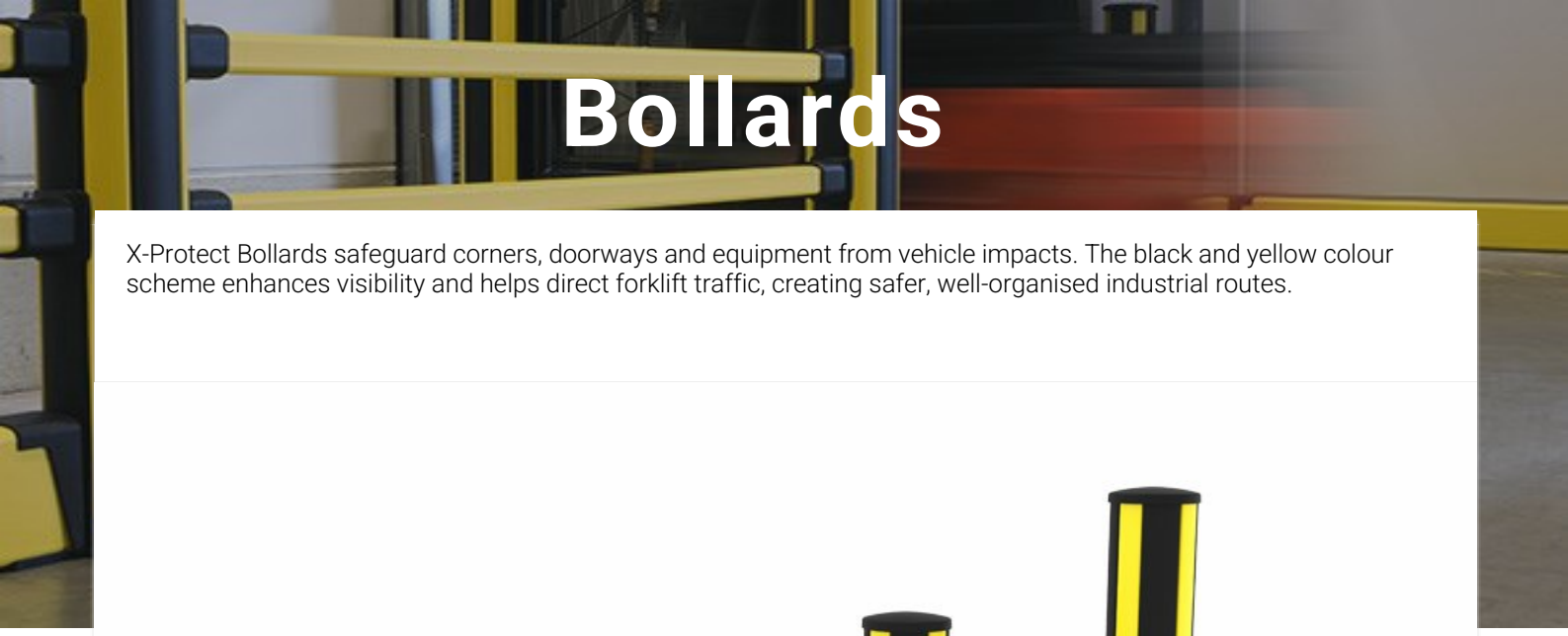


Bollards

X-Protect Bollards safeguard corners, doorways and equipment from vehicle impacts. The black and yellow colour scheme enhances visibility and helps direct forklift traffic, creating safer, well-organised industrial routes.



The X-Protect Classic Bollards are built for heavy-duty protection in areas exposed to frequent vehicle movement. Ideal for safeguarding doorways, exposed corners and machinery, they attract attention and help drivers navigate safely along traffic routes. The Classic Bollards are available in four sizes, from 350 to 1160 mm, and can also be seamlessly integrated into the X-Guard Machine Guard System, creating a continuous safety solution across the facility.

The X-Protect Essential Bollards, by contrast, are designed for light-duty impact zones where flexibility and fast installation are key. They provide dependable ground-level protection against accidental contact from forklifts, AMRs or pallet trucks while maintaining an open layout. Available in four sizes from 620 to 1170 mm, the Essential Bollards allow easy adaptation to different layouts and traffic conditions.

As part of the X-Protect Impact Protection System, both bollard types feature modular components, quick installation and easy maintenance which gives long-term performance with minimal disruption.

Key features

- Fast to install
- Kind to the floor
- Easy to repair

Impact test results					
Classic Bollard					
Bollard height	*Load*	*Equivalent to*		*90° Deflection*	*Force to fixings*
350mm	2100 J	2500 kg 4,6 km/h	5000 kg 3,3 km/h	NA*	18 kN
610mm	5250 J	2500 kg 7.3 km/h	5000 kg 5.2 km/h	300mm	19.5 kN
870mm	5250 J	2500 kg 7.3 km/h	5000 kg 5.2 km/h	420mm	17.5 kN
1160mm	5250 J	2500 kg 7.3 km/h	5000 kg 5.2 km/h	620mm	12 kN
Essential Bollard					
Bollard height	*Load*	*Equivalent to*		*90° Deflection*	*Force to fixings*
620mm	1500 J	2500 kg 3.9 km/h	1500 kg 5 km/h	160mm	5.6 kN
880mm	1500 J	2500 kg 3.9 km/h	1500 kg 5 km/h	380mm	6.4 kN
1170mm	1500 J	2500 kg 3.9 km/h	1500 kg 5 km/h	585mm	4.3 kN

- Due to the bollard height, it is considered that the deflection is not critical for product selection.

Safety Bollards for Warehouses & Industrial Facilities | X-Protect by Axelent

Forklifts and other material handling vehicles are bound to clip a column or a doorway sooner or later. That's exactly the moment Axelent's safety bollards are built for. Instead of passing the impact straight into your floor and equipment, they absorb the energy themselves. Beyond protection, they're finished in high-visibility black and yellow, so they double as a visual cue that helps guide drivers through the space. Since damaged or worn parts can be replaced at a component level, a hit doesn't mean a major repair job. For safety and facility managers, that combination is the real win: fewer repairs and more confidence in the areas where people and vehicles cross paths every shift.

Where Safety Bollards Are Used

X-Protect warehouse safety bollards are commonly installed at:

- Loading dock doorways and bay entry points where forklifts enter and exit regularly
- Aisle end caps and intersection corners where vehicle turning increases impact risk
- Machinery and equipment perimeters in manufacturing and production areas
- Exposed building corners and structural pillars in high-traffic zones
- Pedestrian crossing points, to reinforce designated crossing areas
- AMR and AGV operating zones where autonomous vehicles navigate near walls and infrastructure

Product Information

The **X-Protect Classic Bollards** are built for heavy-duty protection in areas exposed to frequent vehicle movement. Ideal for safeguarding doorways, exposed corners, and machinery, they attract attention and help drivers navigate safely along traffic routes. The Classic Bollards are available in four sizes, from 350 to 1160 mm, and can also connect directly into the X-Guard machine guarding system for continuous protection across the facility.

The **X-Protect Essential Bollards** are designed for light-duty impact zones where flexibility and fast installation are key. They provide dependable ground-level protection against accidental contact from forklifts, AMRs, or pallet trucks while maintaining an open layout. Available in three sizes from 620 to 1170 mm, they allow easy adaptation to different layouts and traffic conditions.

As part of the X-Protect system, both bollard types are built with modular components for quick installation and easy maintenance, giving long-term performance with minimal disruption.

Key Features

- **Fast to install:** Each bollard bolts to a surface-mounted base plate with only a few basic tools, so a facility team can place one in a matter of minutes rather than scheduling outside contractors or cutting into the slab.
- **Kind to the floor:** The energy-dissipating core absorbs the force of an impact before it reaches the concrete underneath, which means fewer cracked slabs and less wear on the floor around high-traffic areas.
- **Easy to repair:** If a bollard takes a hard hit, you don't have to replace the whole unit. Worn or damaged parts can be swapped out on their own, so protection stays in place without a full teardown.

How Bollards Work Within the Larger X-Protect System

A bollard rarely works alone. It's typically the first piece of a broader impact protection plan that might also include floor barriers, impact barriers, or pedestrian barriers running along the same wall or aisle. Axelent built its bollards to share one anchoring principle with the rest of that system, so a bollard installed today can connect into a longer barrier run later without tearing anything out and starting over.

That shared design is what makes it possible to expand protection as a facility grows or changes:

- **One anchoring system throughout:** Bollards, floor barriers, impact rails, and pedestrian barriers all mount using the same anchoring principle, so adding one doesn't mean redesigning the others.
- **A bollard can become an anchor point:** A single bollard guarding a column today can serve as the starting point for a full barrier line later, if traffic patterns in that area change.
- **Direct connection to X-Guard:** Taller bollard options tie straight into the machine guarding system, letting impact protection and machine guarding work as one connected line of defense rather than separate projects handled at separate times.
- **Fewer standalone fixes:** Because every piece shares the same design logic, facilities avoid a patchwork of one-off solutions installed over time using inconsistent mounting methods.
- **Fewer floor holes over time:** Reusing the same anchoring approach across the system means less drilling and patching as protection expands.

For a facility or safety manager thinking beyond one problem area, this is the practical payoff of modularity: a system that keeps pace with the layout instead of dictating it.

Protect Your Facility with Axelent X-Protect Bollards

Safety bollards are a small investment against a much larger cost: damaged infrastructure and downtime you didn't plan for. Axelent's bollards are part of a modular impact protection system built to install fast and adapt as your facility's needs change. If you're ready to protect your doorways, columns, equipment, and traffic routes, talk to an Axelent representative about the right bollard configuration for your space.

FAQ Section

What is the difference between a safety bollard and a regular bollard?

A standard steel bollard is rigid, so it takes the full force of an impact and transfers it into the floor. A safety bollard is built with an energy-dissipating core designed to absorb that force, protecting the floor and the structure behind it while reducing damage to the vehicle.

How much impact can a safety bollard absorb?

It depends on the height and configuration. Axelent's bollards are tested to absorb roughly 3,200 to 5,250 joules of impact energy, depending on the model, using repeatable forklift-replica testing.

Can safety bollards be installed without professional help?

Yes. Axelent bollards use a surface-mounted base plate and require only minimal tools, so most facility maintenance teams can install them without bringing in outside contractors.

Models

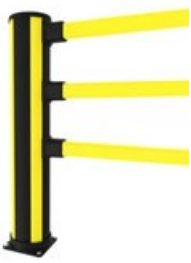
Essential Bollards 3 articles

ARTICLES / DESCRIPTION	WIDTH (MM)	HEIGHT (MM)	COLOR
 **BEP0-062-0000** Essential Bollard	114	620	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
 **BEP0-088-0000** Essential Bollard	114	880	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
 **BEP0-117-0000** Essential Bollard	114	1170	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)

Classic Bollards 4 articles

ARTICLES / DESCRIPTION	WIDTH (MM)	HEIGHT (MM)	COLOR
 **BCP0-035-0000** Classic Bollard	200	350	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
 **BCP0-061-0000** Classic Bollard	200	610	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
 **BCP0-087-0000** Bollard	200	870	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
 **BCP0-116-0000** Classic Bollard	200	1160	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)

Related products



CLASSIC PEDESTRIAN

Pedestrian

Use the X-Protect Pedestrian barrier configuration to define pedestrian routes and protect from light duty impacts. It is also possible to combine with a pedestrian gate. The pedestrian gate is sel...

9 articles



CLASSIC PEDESTRIAN

Pedestrian with impact

Use the X-Protect Pedestrian + Impact barrier configuration to protect walkways from medium duty vehicles where there is an increased risk of ground level impacts. It is also possible to combine wi...

16 articles



COLUMN GUARDS

X-protect Column guard

Use the X-Protect Column Guard when you need to protect the columns in your facility from impact damage. The unique design features specially formed air channels that effectively dissipate impact f...

1 articles



X-PROTECT X-GUARD BOLLARDS

X-Guard Connection bollards

Use our X-Protect bollards to protect doorways, exposed corners and machinery. The black and yellow bollards also attract the fork lift driver’s attention and act as guidance along traffic routes....

6 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"

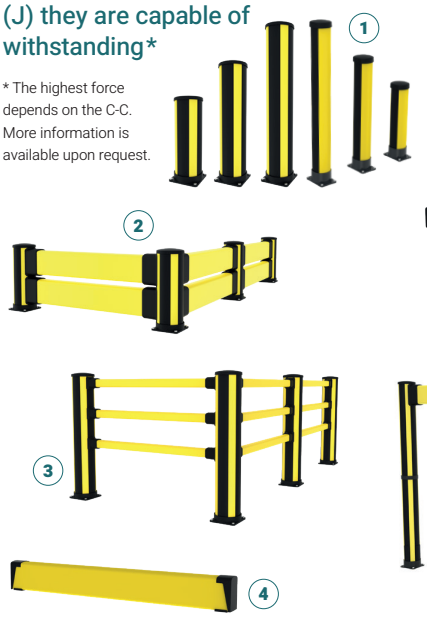
Essential
2 connection sides
Width:
132 mm
5 3/16"
Height:
620 – 1170 mm
24 7/16" – 46 1/16"

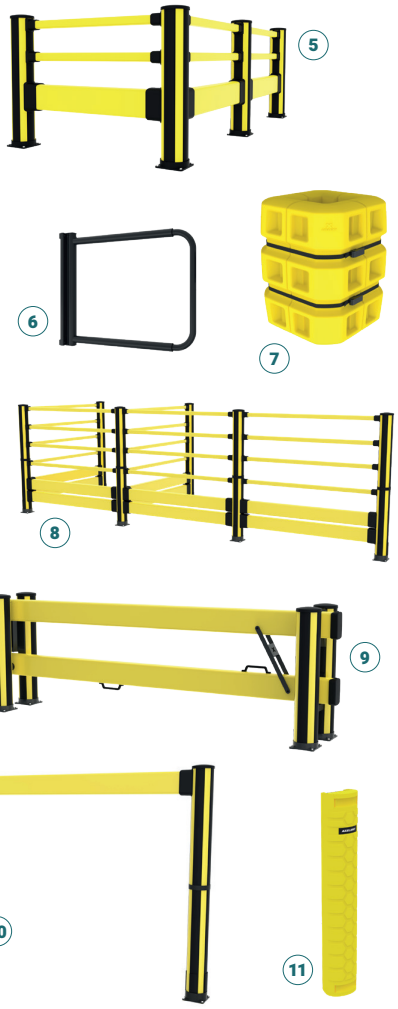


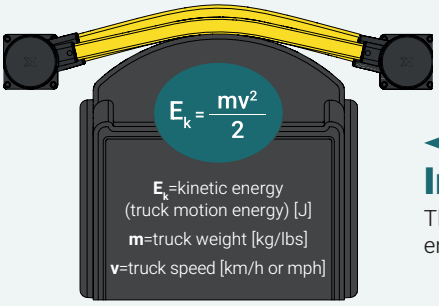
X-Protect Standard Configurations

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

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







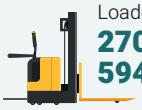
Impact testing

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**