# 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 | 3200 J | 2500 kg 5.7 km/h | 5000 kg 4 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.

# 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<br>Essential Bollard | 114 | 1170 | Zinc Yellow (RAL 1018)<br>Graphite Black (RAL 9011) |

## Classic Bollards  8 articles

| ARTICLES / DESCRIPTION | WIDTH (MM) | HEIGHT (MM) | COLOR |
| --- | --- | --- | --- |
| **BCP1-035-0000**<br>Classic Bollard | 200 | 350 | Zinc Yellow (RAL 1018) |
| **BCP0-035-0000**<br>Classic Bollard | 200 | 350 | Zinc Yellow (RAL 1018)<br>Graphite Black (RAL 9011) |
| **BCP1-061-0000**<br>Classic Bollard | 200 | 610 | Zinc Yellow (RAL 1018) |
| **BCP0-061-0000**<br>Classic Bollard | 200 | 610 | Zinc Yellow (RAL 1018)<br>Graphite Black (RAL 9011) |
| **BCP1-087-0000**<br>Classic Bollard | 200 | 870 | Zinc Yellow (RAL 1018) |
| **BCP0-087-0000**<br>Bollard | 200 | 870 | Zinc Yellow (RAL 1018)<br>Graphite Black (RAL 9011) |
| **BCP1-116-0000**<br>Classic Bollard | 200 | 1160 | Zinc Yellow (RAL 1018) |
| **BCP0-116-0000**<br>Classic Bollard | 200 | 1160 | Zinc Yellow (RAL 1018)<br>Graphite Black (RAL 9011) |

# Related products
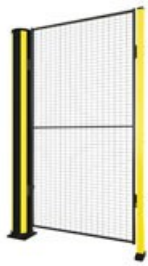
### X-PROTECT

## 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....
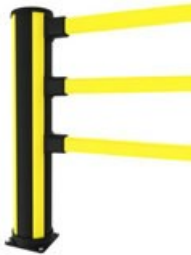
*12 articles*

### CLASSIC PEDESTRIAN BARRIER

## 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...

*19 articles*

### CLASSIC PEDESTRIAN BARRIER

## 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...

*12 articles*

# Impact Protection

**X AXELENT**

## X-Protect is Safe

✔ Our impact protection products undergo rigorous testing at our state-of-the-art testing facility.

✔ With decades of experience in industrial safety, we've designed our impact protection to perform effectively in real-world conditions.

✔ We know safety and can guide you to the best solutions tailored to your specific needs.
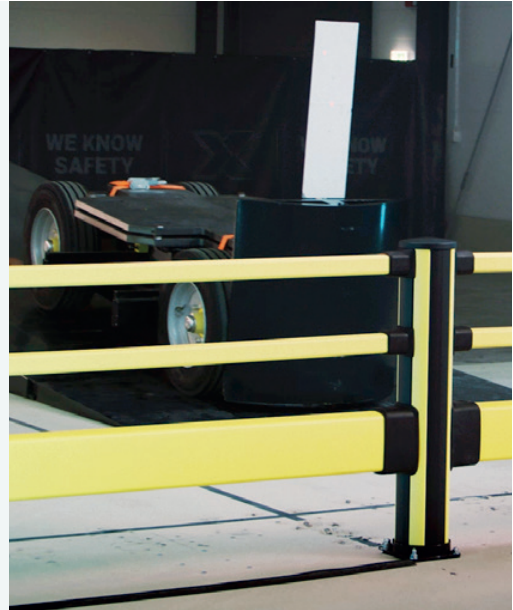
## X-Protect is Modular

✔ Quickly modify barrier specifications with minimal waste.

✔ Perform easy and cost-effective repairs at a component level.

✔ Quickly build strong integrated installations with few parts.

## X-Protect is Sustainable

✔ Simple end of life dis-assembly, even after an accident.

✔ Single material components that are easy to recycle.

✔ Repairable by design, damaged or worn components are easily replaced extending the barrier's life.

# Technical Information

**X AXELENT**

## X-Protect components

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

### BARRIERS & RAILS

#### Hand 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

**Height:**
350 - 1160 mm
13 13/16" –
45 11/16"
**Width:**
200 mm
7 7/8" in

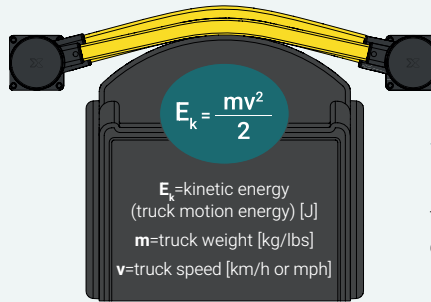## Component Colours

● RAL 1018
● RAL 9011

## 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.

$$E_k = \frac{mv^2}{2}$$

$E_k$=kinetic energy (truck motion energy) [J]
**m**=truck weight [kg/lbs]
**v**=truck speed [km/h or mph]

## Impact testing

This is how we calculate the energy from a vehicle impact.
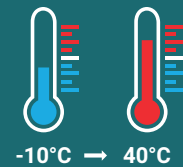
Loaded weight **3600 kg / 7930 lbs**

| 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 |

## Operating temperature

-10°C → 40°C

## Assembly

SCAN THE CODE TO DOWNLOAD OUR ASSEMBLY MANUALS

**3** 6200 J
**8** 8000 J
**4** 7700 J
**9** 8300 J
**5** 7000 J
**10** 0 J
**6** 5000 J
**11** 1800 J
**1** 5250 J
**12** 3000 J
**2** 4500 J
**7** 6700 J

The Floor Barrier can be used in combination with configurations: **3, 6, 8 & 9**
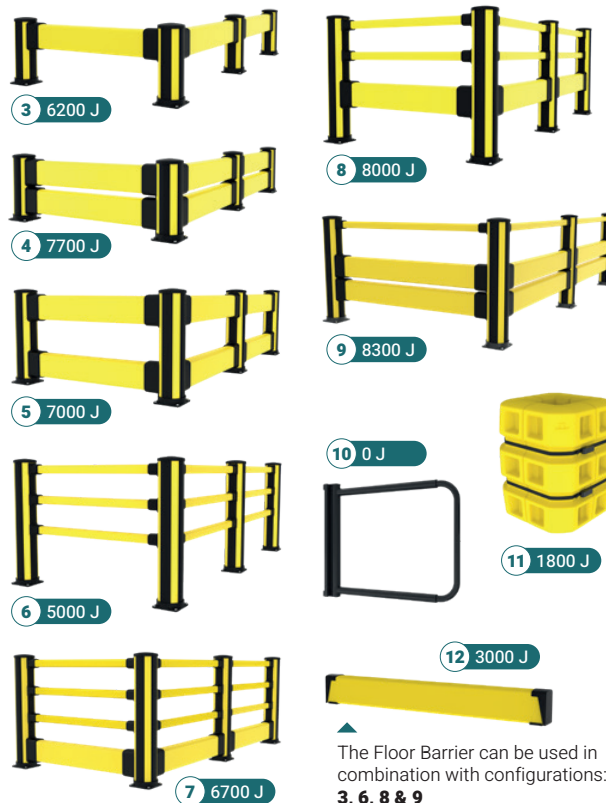
1. Bollards
2. Impact
3. Impact High
4. Double Impact Low
5. Double Impact High
6. Pedestrian
7. Pedestrian + Impact
8. Pedestrian + Impact High
9. Pedestrian +Double Impact
10. Pedestrian Gate
11. Column Guard
12. Floor Barrier