Topple Barrier Impact

The X-Protect Topple Barrier Impact combines topple prevention and impact protection in warehouse and logistics environments with mixed pedestrian and vehicle traffic. Designed to maintain safe workflows and clear separation, the system helps protect personnel, goods and surrounding infrastructure.



The X-Protect Topple Barrier Impact is developed for warehouse, logistics and production environments where falling goods, pallet handling and vehicle traffic create safety risks for personnel and operations.

The reinforced configuration combines lower rails with impact protection and upper pedestrian protection to help prevent goods from entering walkways while providing additional protection against vehicle impacts. Its modular construction integrates directly with the X-Protect range, enabling flexible and continuous protection layouts throughout the facility.

Suitable for high-bay storage, loading areas, pick and pack zones and internal logistics routes, the barrier maintains open visibility and efficient workflows in demanding operational environments. The flexible design helps absorb impact forces while installation remains fast and straightforward using the same simple installation approach as the rest of the X-Protect range.

Key features

- Combined topple and impact protection
- Designed for forklift and AGV traffic
- Modular X-Protect integration

- Fast and easy installation

Impact test results

Product:	Area of impact	Load	Equivalent to	Equivalent to	90' deflection	Force to fixings
	Centre of barrier C - C as below					
Topple Barrier Impact 2300	2000 mm	6200 J	2500 kg 8 km/h	5000 kg 5,8 km/h	N/A	12,2 kN
	Post					
Topple Barrier Impact 2300	End post	5250 J	2500 kg 7,3 km/h	5000 kg 5,2 km/h	N/A	5,4 kN
Topple Barrier Impact 2300	Mid post	5250 J	2500 kg 7,3 km/h	5000 kg 5,2 km/h	N/A	5,9 kN
	Area of impact	Load		Equivalent to	90' deflection	Force to fixings
	Centre of barrier C - C as below					
Topple Barrier Impact 3400	2000 mm	6200 J	2500 kg 8 km/h	5000 kg 5,8 km/h	N/A	5,9 kN
	Post					
Topple Barrier Impact 3400	End post	5250 J	2500 kg 7,3 km/h	5000 kg 5,2 km/h	N/A	4,8 kN
Topple Barrier Impact 3400	Mid post	5250 J	2500 kg 7,3 km/h	5000 kg 5,2 km/h	N/A	5,1 kN

* Deflection of posts is equivalent or less than that of the rail/s and is not considered to be critical for product selection. Performance is tested at height of the lowest rail. The post will perform better for lower strikes and deflection. The Axelent Topple Barrier is tested for static load on top rail up to 400 kg.

Models

Height 2280 mm 4 articles

ARTICLES / DESCRIPTION	WIDTH (MM)	HEIGHT (MM)	COLOR
 **BTC0-228-I2P4** Topple Impact corner		2300	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
 **BTE0-228-I2P4** Topple Double Impact end		2300	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
 **BTM0-228-I2P4** Topple Impact mid		2300	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)

	**BTT0-228-I2P4** Topple Double Impact T post		2300	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)

Height 3402 mm 4 articles

ARTICLES / DESCRIPTION		WIDTH (MM)	HEIGHT (MM)	COLOR
	**BTC0-340-I2P7** Topple Impact corner		3400	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
	**BTE0-340-I2P7** Topple Double Impact end		3400	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
	**BTM0-340-I2P7** Topple Double Impact mid		3400	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
	**BTT0-340-I2P7** Topple Double Impact T post		3400	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)

Height 4520 mm 4 articles

ARTICLES / DESCRIPTION		WIDTH (MM)	HEIGHT (MM)	COLOR
	**BTC0-450-I2P10** Topple Impact corner		4520	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
	**BTE0-450-I2P10** Topple Double Impact end		4520	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
	**BTM0-450-I2P10** Topple Double Impact mid		4520	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)
	**BTT0-450-I2P10** Topple Double Impact T post		4520	Zinc Yellow (RAL 1018) Graphite Black (RAL 9011)

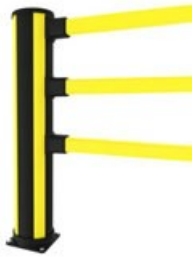
Impact rails 7 articles

ARTICLES / DESCRIPTION	WIDTH (MM)	HEIGHT (MM)	COLOR
 **RCI1-047-0070** Impact rail			Zinc Yellow (RAL 1018)
 **RCI1-077-0100** Impact rail			Zinc Yellow (RAL 1018)
 **RCI1-127-0150** Impact rail			Zinc Yellow (RAL 1018)
 **RCI1-177-0200** Impact rail			Zinc Yellow (RAL 1018)
 **RCI1-227-0250** Impact rail			Zinc Yellow (RAL 1018)
 **RCI1-277-0300** Impact rail			Zinc Yellow (RAL 1018)
 **RCI1-027-0050** Impact rail			Zinc Yellow (RAL 1018)

Hand rails 5 articles

ARTICLES / DESCRIPTION	WIDTH (MM)	HEIGHT (MM)	COLOR
 **RCP1-047-0070** Hand rail			Zinc Yellow (RAL 1018)
 **RCP1-077-0100** Hand rail			Zinc Yellow (RAL 1018)
 **RCP1-127-0150** Hand rail			Zinc Yellow (RAL 1018)
 **RCP1-177-0200** Hand rail			Zinc Yellow (RAL 1018)
 **RCP1-027-0050** Hand rail			Zinc Yellow (RAL 1018)

Related products



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



IMPACT PROTECTION

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...

11 articles



COLUMN GUARDS

Multifunctional Column Guard

The Multifunction Column Guard is designed to protect large building columns and pillars from impacts caused by forklifts and other material handling equipment. With asymmetrical on-site adjustment...

3 articles



X-PROTECT BOLLARDS

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-org...

7 articles



X-PROTECT DOCK GATE

Dock Gate

The X-Protect Dock Gate helps protect loading bays and dock areas in demanding warehouse and logistics environments. Designed for smooth and controlled operation, it combines reliable impact protec...

3 articles

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"

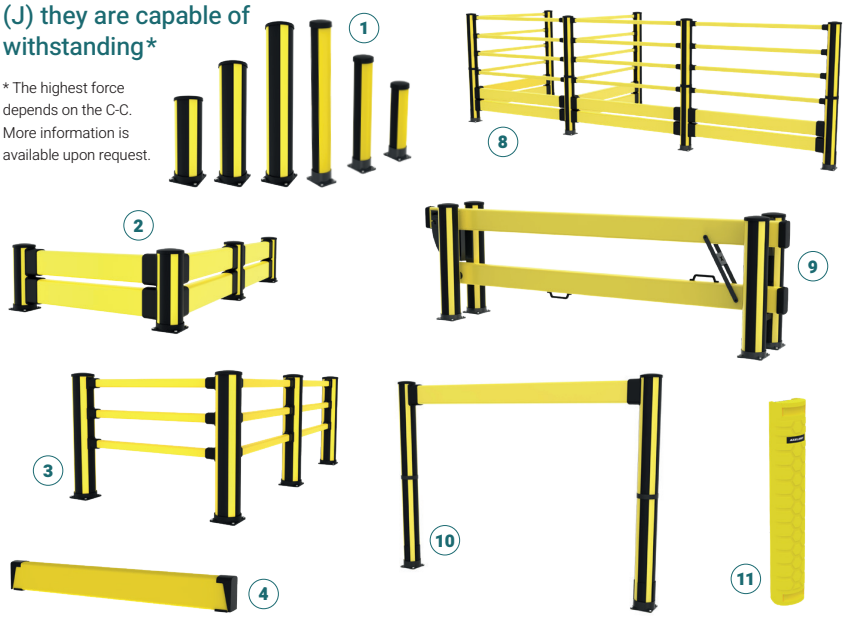
Essential
2 connection sides
Width:
132 mm
5 3/16"
Height:
620 – 1170 mm
24 7/16" – 46 1/16"

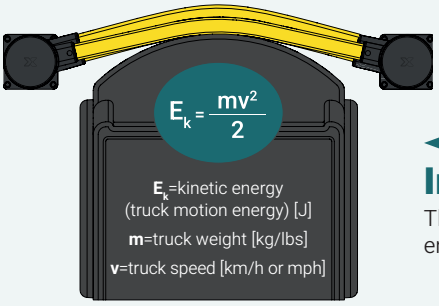


X-Protect Standard Configurations

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

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





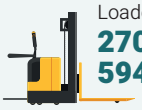
Impact testing

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**