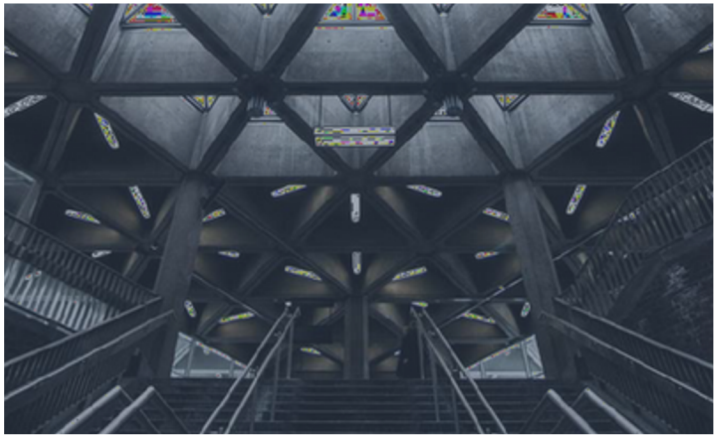
DYNOFORCE PROFILE

Dynoforce designs, supplies, and installs one of the most comprehensive ranges of Parking Management and Hostile Vehicle Mitigation (HVM) solutions globally, supported by a full suite of specialized professional services.

Our team of engineers and technical experts deliver custom-designed security solutions, including crash-rated bollards, automatic and manual crash-rated gates, non-crash-rated perimeter systems, and pedestrian access control systems. Dynoforce products are trusted and installed across high-security sites around the world.

Headquartered in India with a strong domestic presence and supported by global partners and distributors, Dynoforce serves clients across international markets with end-to-end security solutions built to global standards.



DYNOFORCE

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Website: www.dynoforce.in
Email: info@dynoforce.in

PRODUCT RANGE:

- Crash Rated Bollard - Fixed
- Crash Rated Bollard - Automatic/Retractable
- Non Crash Rated Bollards
- Parking Bollards
- Crash Rated Automatic/Manual gates
- Non crash Rated Automatic/Manual gates
- Pedestrian Gates
- Automatic/Manual Boom Barrier
- Crash Rated Wall

K12 Crash Rated Auto Bollard:

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Description

DynoForce's automatic bollard is certified to ISO 22343 and IWA 14-1 standards, delivering high performance in hostile vehicle mitigation.

Physically crash-tested by HORIBA MIRA, UK at two levels, the same retractable bollard model successfully achieved:

- K4 rating - Stopped a 7.2-tonne vehicle at 48km/h with a P1 penetration.
- K12 rating - Stopped a 7.2-tonne vehicle at 80km/h with a P3 penetration.

In all scenarios, the bollard remained operational post-impact with minimal structural deviation, demonstrating its exceptional durability and reliability.

Constructed from high-grade steel and powered by a hydraulic actuator, the system ensures rapid and dependable deployment. It is treated with galvanization and optionally RAL powder coated to withstand long-term outdoor exposure in harsh environments.

Key Dimensions:

- Height: 1000 mm
- Seamless Integration: Easily connects to existing security systems for automatic access control.
- Diameter : 219mm

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Uses

- Perimeter Security: Ideal for securing the outer boundaries of high-risk areas such as military bases, government buildings, and critical infrastructure facilities.
- Traffic Management: Controls and restricts vehicular access in high-security zones, effectively preventing unauthorised entry.
- Impact Protection: Acts as a robust physical barrier to absorb and mitigate the force of high-speed vehicle impacts—protecting both people and infrastructure.
- Infrastructure Protection: Deployed to safeguard vital installations like data centers, power plants, refineries, and airports from hostile vehicle attacks.

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Installation

- Foundation Requirements: Bollards must be installed with a solid concrete foundation to ensure structural stability, especially during high-impact situations.
- Array Configurations: Units can be installed either as standalone elements or in a series (array), depending on the site's specific security needs.
- Site Preparation: Requires groundwork preparation for both electrical connections (to support the hydraulic system) and for setting the concrete foundation.
- Maintenance: Minimal maintenance is required due to the use of durable construction materials and anti-corrosion treatments.

Configuration

- Hydraulic Power Unit (HPU): Drives automatic bollard movement; housed in a separate control cabinet.
- Control System: Integrates with gate entry, barriers, and traffic light systems.
- Rising Speed: 5–6 seconds for both raising and lowering.
- Accumulators: Provide backup power for multiple cycles during outages.
- Emergency Operation: Enables bollards to rise in 2–3 seconds during emergencies.

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CRASH RATED

Dimensions

If dimensions are critical, please contact sales to confirm.

Benefits

- High Impact Resistance: Certified to K12 standards, capable of stopping heavy vehicles traveling at significant speeds, offering strong perimeter protection.
- Automatic Hydraulic Operation: Provides rapid bollard deployment and retraction using hydraulic actuators, with seamless integration into existing access control systems.
- Customization Options: Available in a variety of RAL colors to meet specific aesthetic or branding requirements for different sites.
- Weather Resistant: Constructed with galvanized and powder-coated surfaces to ensure durability in harsh weather conditions and long-term resistance to rust and wear.
- Low Maintenance: Built with robust, corrosion-resistant materials, the system requires minimal maintenance, reducing long-term operational costs.