



## RT Series

# Fixed bollards without excavation

A resistant solution, ideal for bridges, viaducts and areas with limited slab thickness

**PILMAT**  
**HÖRMANN**

# Pilomat: security, innovation, Made in Italy and...

For **over fifty years**, Pilomat has been a benchmark of expertise and reliability in **vehicle access control** and **perimeter security**.

The production is entirely Italian, defined by **design, technology, quality, and sustainability** — key elements that ensure reliable and long-lasting solutions.

Through a combination of engineering, functional design, and continuous investment in innovation, Pilomat develops **integrated and high-performance solutions** for every context.

## Why choose Pilomat?

### Solutions for Every Context

From residential areas to high-security sites, Pilomat offers the **most complete range** of bollards, barriers, road blockers, mobile systems, and accessories. Protection, aesthetics, and functionality without compromise.

### Fast and Simplified Installation

Products **100% tested**, featuring pre-installed cables, ready-to-use control units, and intuitive interfaces. **Less installation time, fewer errors, lower costs.**

### Maximum Certified Security

**Over 20 crash-rated solutions**, tested according to PAS68, IWA 14-1, ASTM, DIN SPEC, and ISO 22343 standards. High-quality materials and strict quality controls ensure certified and long-lasting protection.

The **Security Line** includes models with TÜV validation — a guarantee of reliability.

### Customized Technology

Thanks to its in-house **Research & Development department**, Pilomat designs tailor-made systems — from a single bollard to the most complex integrated installations.

## Recognized and approved security

### Italian Approval

In Italy, Pilomat bollards were the first to pass the rigorous tests of the Ministry of Transport, obtaining **two official type-approvals** that authorize their installation on public roads throughout the country.

### International Certifications

Our work is based on continuous product evolution, careful material selection, and rigorous safety testing — a commitment that has earned Pilomat prestigious international certifications, **ensuring proven quality and reliability.**



**Public spaces**



**Retail and Business**



**Private spaces**



**Temporary event protection**



# Protection for bridges and viaducts

## 220/RT-800F

The fixed bollards of the **RT Series** provide a **safe solution** in all contexts where excavation is not possible. Anchoring with **chemical anchors** ensures stability and **high resistance to accidental impacts**, while maintaining an essential design that easily adapts to complex infrastructural contexts and areas with structural constraints.



Our solutions can also be **designed for the protection of bridges and viaducts**, contexts that require **high security** and **non-invasive installation**. **Quick to install**, they ensure the **continuous protection** of strategic infrastructures.



With the construction of the bridge, the need emerged to **protect the most critical and vulnerable areas** from accidental impacts. The absence of adequate barriers posed potential risks for pedestrians and did not ensure a **safe separation between the roadway and the sidewalk**.



The installation of fixed bollards made it possible to clearly and continuously **delimit the pedestrian path**, replacing traditional guardrails with a more elegant solution. The structure has gained stable, impact-resistant protection, **combining safety with aesthetic harmony**.

# Levante Waterfront

## Location

Genova, Italy

## Project

The client required an **alternative to traditional guardrails**, capable of ensuring the same level of safety while offering an **aesthetic impact** consistent with the architectural language of the new Levante Waterfront. The system had to be **installed on the movable bridges** of the area and provide **certified protection** for both pedestrians and vehicles, guaranteeing at the same time a visually seamless integration with the project designed by Renzo Piano.

## Soluzione Pilomat

To meet this requirement, Pilomat **designed and built from scratch** a new fixed bollard: the **220/RT-800F** model. The product was developed to offer **high resistance to impacts from light and heavy vehicles**, according to the transit speeds allowed on the bridge. Anchoring with chemical anchors allows for **quick and precise installation**, with no need for excavation, ensuring **stability and long service life**. The result is an **elegant and discreet system** that provides certified protection and a design perfectly integrated into the architectural context.

# Push test: certified performance

## *Tested resistance, guaranteed reliability*

Before starting mass production, the RT Series fixed bollards intended for the Levante Waterfront were subjected to a **push test to verify the actual resistance of the anchoring and structure**. The test, carried out using a hydraulic actuator, simulated a real impact by applying a progressive force on the cylinder, equivalent to that generated by a moving vehicle.

The goal was to certify the breakout resistance both for a **3.5-ton car** at 30 km/h and for a **21-ton truck**. The sensors installed during the test recorded minimal deformation and displacement, confirming full compliance with the engineering calculations performed during the design phase.

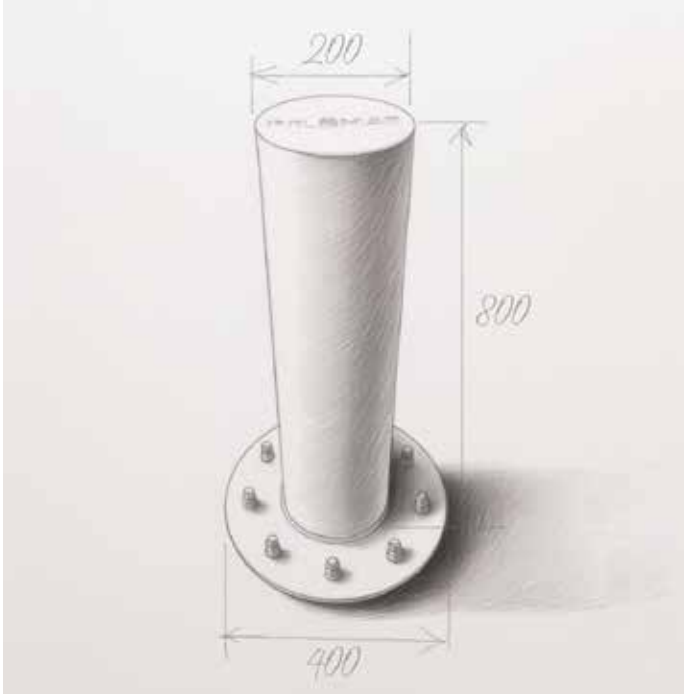
The result validated the chemical anchor fixing solution and the overall robustness of the system, demonstrating the ability of the RT bollards to ensure a **high level of protection even in the event of accidental impacts**.

A tangible confirmation of the build quality and effectiveness of the product, specifically designed to meet the safety requirements of modern urban infrastructures.



# A tailor-made installation

## *From project to reality: ready-to-use security*



The intervention on the Waterfront Bridge in Genoa was carried out with the aim of combining safety, precision, and respect for the structural characteristics of the work.

The bollards were anchored using **chemical anchors arranged in a circular pattern around the base**, a solution that ensures deep and stable fixation without the need for excavation or invasive works.

Each phase of the installation was carried out **under the supervision of Pilomat technicians**, who checked **alignment, depth, and torque to ensure** a perfectly compliant installation according to the design specifications.

The result is a **solid, precise and durable system**, installed quickly and capable of providing **immediate protection without altering the bridge's aesthetics**.



# ...respect for the environment

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www.epditaly.it



## Environmental protection and safety: a perfect balance

At Pilomat, safety goes beyond access control, it is a principle that also extends to **environmental protection**. We have taken a concrete step toward sustainability, becoming the first company in the world to obtain **EPD (Environmental Product Declaration)** certification for our automatic bollards: 275/K12EMB-900A and 275/K12-900A.

This certification confirms **our commitment** to assessing and communicating the environmental impact of our products throughout their entire life cycle, in accordance with the international ISO 14025 standard.



## A shared commitment with the Hörmann Group

Since 2016, Pilomat has been an integral part of the Hörmann Group, Europe's leading company in the civil and industrial door and closure sector. Together, we pursue a shared vision of sustainability based on three key principles: **calculation, reduction, and compensation** of CO<sub>2</sub> emissions.

Each year, we analyze the CO<sub>2</sub> balance of our facilities — including the products we manufacture — to identify the main sources of impact and implement targeted measures to reduce them. Residual emissions are offset through certified projects, contributing to the **production of climate-neutral products**.

## Sustainable innovation for a better future

Sustainability is at the core of every stage of our production process — from material selection to the design of efficient and long-lasting solutions. We work closely with qualified partners to ensure that every Pilomat product meets the highest environmental standards while maintaining outstanding performance and security.



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