

Does size really matter?

Despite what many men believe- it's not size that matters

When selecting a bollard for real impact resistance, it's easy to assume that **bigger means stronger**. But in engineered systems, the **outer diameter of the post has very little influence** on stopping capability.

What actually matters is **the foundation beneath the ground** and the **internal resistance core** — this is where the energy is absorbed and controlled.

1. The Myth: "A Larger Bollard is Stronger"

Increasing the post diameter (e.g., from 165 mm to 300 mm) may look more imposing, but it **does not increase vehicle-stopping strength** on engineered systems.

- A bollard's visible size is mostly cosmetic. A bollard's *strength* comes from its embedment, footing, reinforcement, and load path.
- If you want your bollard to "look" menacing- add a Bollard cover (190 mm diameter) which will further increase resilience

2. The Reality: Strength Comes From Below Ground

The engineered footing does the work

- Impact energy is transferred into the **650 mm deep reinforced foundation**, not into the outer shell of the bollard.
- This footing and resistance core is what prevents vehicle over-run and limits penetration.

Without the correct footing, even a large 300 mm bollard will fail

The internal resistance core is the true barrier

- The 165 mm steel core is designed to **transfer and dissipate energy correctly**.
- It allows controlled deflection at low speeds and rigid resistance at high speeds.
- A 300 mm decorative sleeve adds no structural value.
- We have an Extra Heavy-Duty option for high impact zones

3. Why 165 mm is the Correct Specification

- **Tested and validated** on the Extra Heavy Duty Impact Recovery System.
- **Designed to deflect** under low-speed impact, reducing vehicle damage.
- **Engineered to resist** high-speed impact by transferring load into the foundation.
- **Larger diameters do not improve performance** and may actually interfere with correct energy transfer.
- Bigger posts add **cost, weight, and installation effort** with zero stopping benefit.

4. When Larger Bollards Do Make Sense

- Wayfinding or visual prominence
- Architectural features
- Pedestrian delineation
- Traffic calming
- Protecting corners or assets from slow-speed bumps

But not for impact resistance.

Larger bollards look stronger — but they **don't stop vehicles any better**.

Choosing a bollard based on its diameter is like judging an iceberg by what you see above the water.

The small part above the surface isn't what stops the ship — it's the massive structure hidden beneath that does the real work.

Bollards work the same way:

- What's above ground is just the indicator.
- What's below ground is the strength.
- The engineered foundation is the "iceberg" that absorbs the impact.

A larger visible bollard doesn't mean stronger protection — the foundation is what stops vehicles, not the size of the post.

If you need real impact performance, choose the correct engineered system — not a larger post. The foundation does the hard work.

