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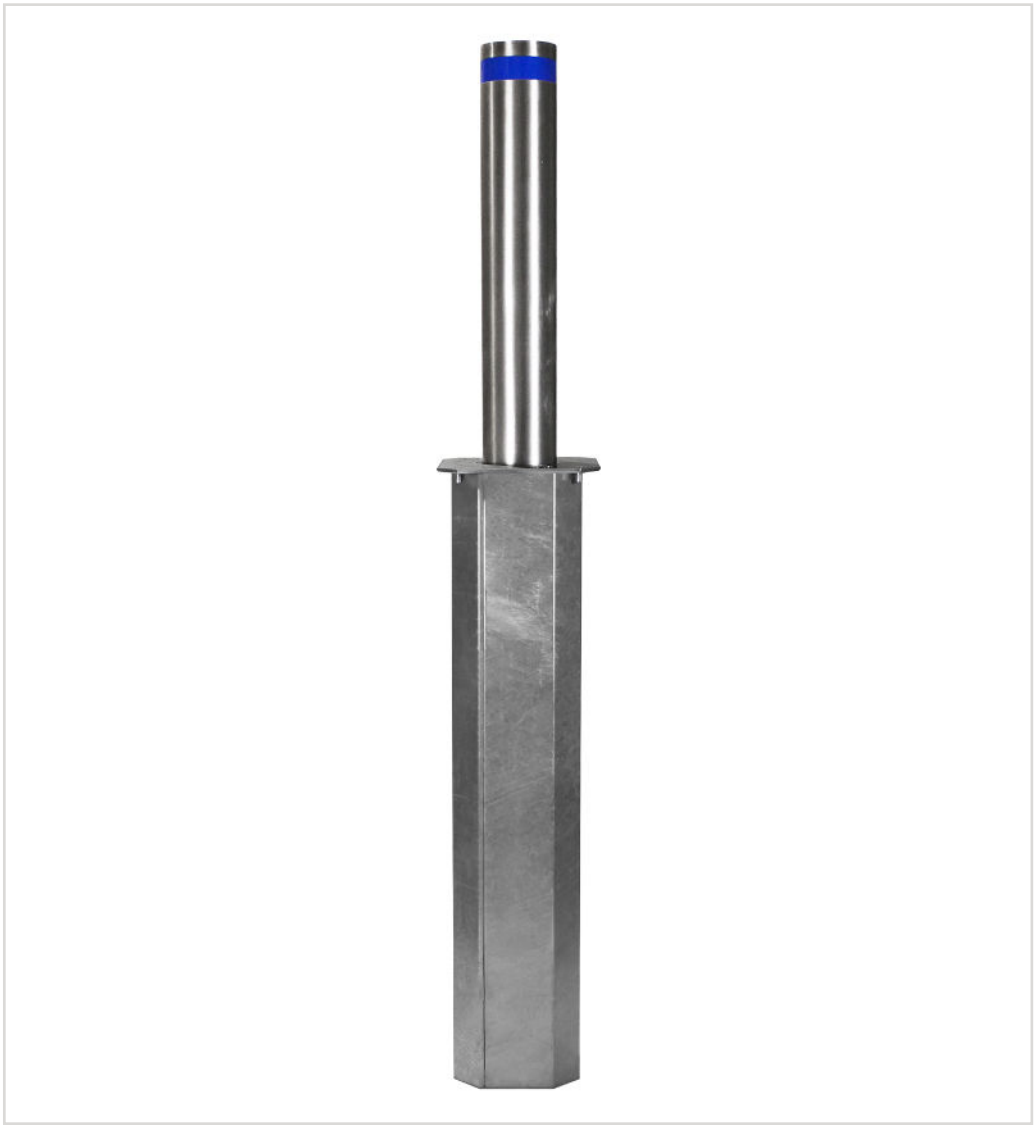
INSTALLATION GUIDE:

R-9001 Zero-Gravity Bollard



ITEM DESCRIPTION:

The R-9001 Zero-Gravity bollard is a semi-automatic retractable bollard engineered from smooth, intuitive operation with minimal physical effort. Designed for durability and long-term performance, it features a unique mechanical-assisted lift system, eliminating the need for hydraulics, gas struts, or external power sources.

When unlocked, mechanical system reduces the load making it easy to fully extend with a light pull. It locks securely in both the raised and lowered positions and sits flush with the ground when retracted, maintaining an unobtrusive profile. Highly visible reflective tape is included to enhance safety and visibility in both day and night conditions.

Constructed from corrosion-resistant stainless steel, the R-9001 is built to withstand the elements and high-frequency use. All components are field-replaceable, providing a low-maintenance solution for secure access control in public and private spaces.

KEY FEATURES:

- Mechanical-assisted lift system for effortless operation
- Easily raises or lowers with minimal physical effort
- No hydraulics, gas struts, or power source required
- Corrosion-resistant stainless steel construction
- Locks in both raised and lowered positions
- Field-replaceable components for easy maintenance
- Tested for a minimum of 2,700 up/down cycles

NOTE:

- Always ensure any applicable site and safety codes have been followed
- To protect the finish, keep bollards in original packaging until the exact moment of installation.
- Handle with care to avoid scratching or damaging bollard surfaces as abrasions will lead to rust.
- Once scratched, bollards cannot be repaired to original form without re-finishing the entire surface.

BEFORE INSTALLATION:

Study the site plans

Site plans are generally created by the architect of the project.

Refer to site plans to locate the precise center point of each bollard.

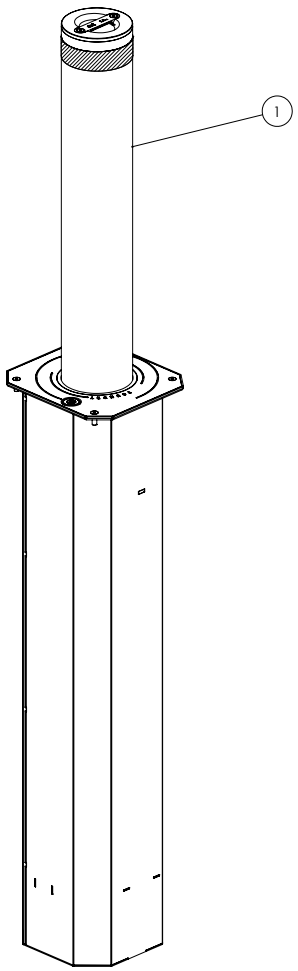
Ensure that the plan coincides with the site and familiarize yourself with the intended arrangement of the bollards.

Check for hazards

Always check for hazards such as water pipes, gas lines, and underground wiring before digging.

INSTALLATION EQUIPMENT:

- 24" [minimum] earth auger or core driller
- Drain rocks
- 3" masonry block
- 1½" drain pipe (depending on local frost line)
- Level
- Chalk
- Measuring tape



PARTS LIST:

#	PART	QTY
1	R-9001 Retractable bollard assembly	1
3	Key (not shown)	2

STEP 1:

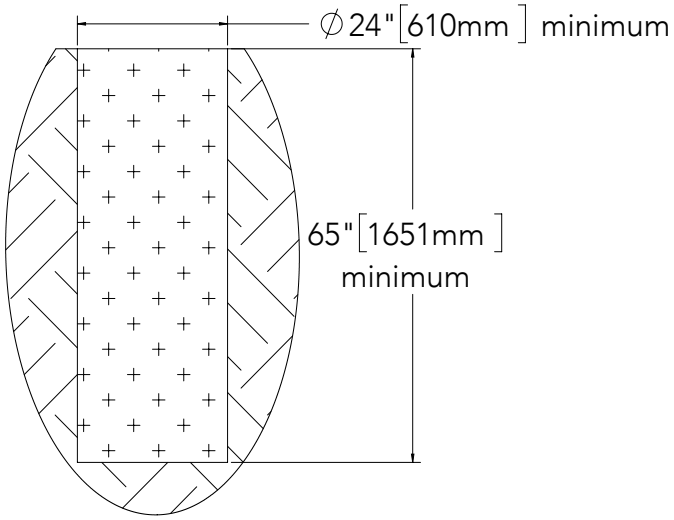
Prepare the site for concrete

Dig a hole to a minimum depth of 65".

Depth should include bollard, masonry block, and drain rocks.

The diameter of the hole should extend to a minimum of 24".

Center the auger on the installation mark and drill a hole to the required depth and diameter.



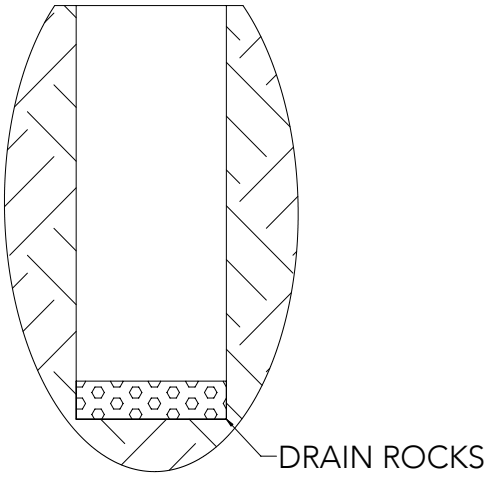
STEP 2:

Add the drain rock

Ensure the area is properly formed to create a perimeter that will hold wet concrete.

Use a dirt tamper to compact the soil below the intended surface

Back fill the drilled hole with drain rocks so that when the bollard assembly is placed in the site the top edge of the receiver will sit at approximately ¼" above grade.



STEP 3:

Add masonry block

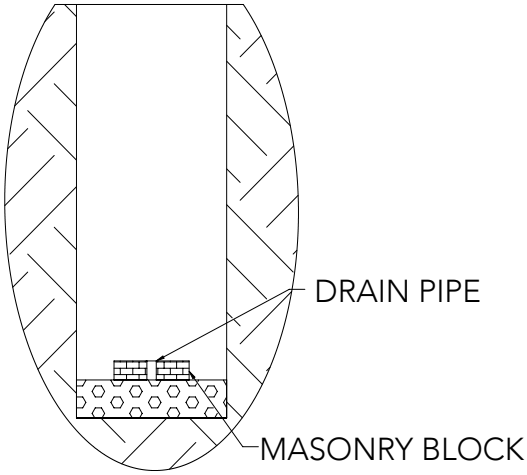
Place 3" masonry block centered in hole.

NOTE: refer to local codes regarding frost lines and install a drain pipe if necessary.

Prepare the bollard assembly

Keep the bollard in its protective packaging.

Carefully place the bollard assembly near the installation position



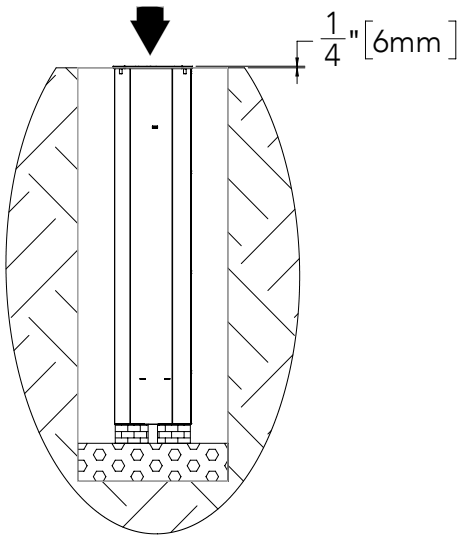
STEP 4:

Install the bollard assembly

Place the bollard assembly in the designated location. When ready to install, remove the protective packaging.

Place the bollard assembly in the center of the installation hole. Ensure that the top edge of the receiver will sit at approximately ¼" (6mm) above grade. This will allow a small berm to be created with concrete.

Use a level to ensure that the bollard is plumb.

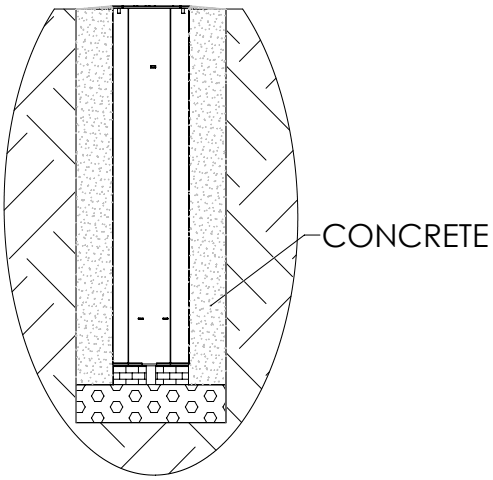


STEP 5:

Pour the concrete

Mix and pour the concrete, ensure that the proper ratio of water and concrete mix is used. The concrete should have a similar texture to molding clay.

Pour the concrete evenly into the site. The concrete should be slightly raised towards the top edge of the receiver to create a slight berm. Avoid disrupting the bollard assembly.



Allow the concrete to cure

A minimum of 2-3 days should be given for concrete to cure before beginning construction projects on new concrete surfaces.

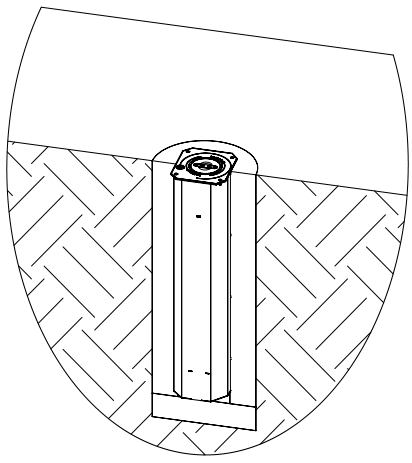
NOTE: moisture in the environment and cool temperatures can significantly slow the process.

Inspect the installation

From a distance, examine the plane of view. Ensure the bollard is plumb to the surface, and the surface is flat.

Check the bollard for signs of damage

Abrasions should be covered as soon as possible to prevent rust and ensure proper life of the bollard.



* For damage repair or other servicing needs, please contact Reliance Foundry's sales department.