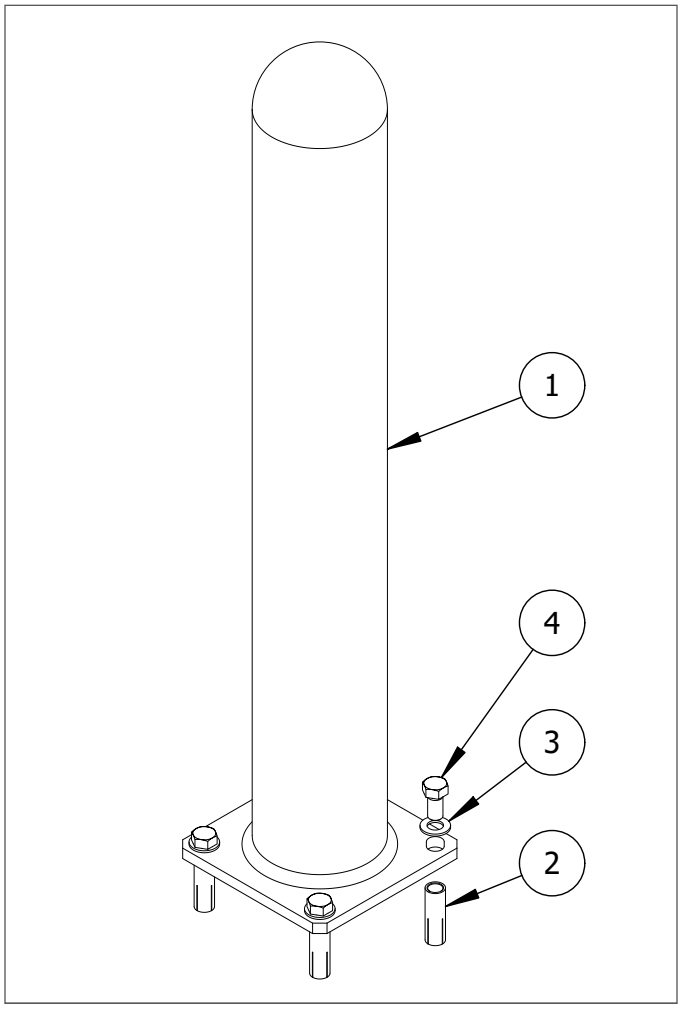
Bolt Down Bollard Installation

Flanged Surface Mounting

Bollards shown in the diagrams may not be the same model as the bollards shipped in this order. This does not affect the integrity of the installation.



Parts List

#	PART	QTY
1	Bollard	1
2	Drop-In Concrete Insert*	4
3	Stainless Steel Washer*	4
4	Hex Bolt*	4

Installation Equipment

Vacuum	Masonry Drill Bit*
Level	Insert Setting Tool (or equivalent)*
Chalk	Wrench*
Hammer	Broom/Pressure Washer
Measuring Tape	Hammer Drill or Rotary Hammer

To protect the finish, keep bollards in packaging until 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

STEP 1: Always check for hazards such as water pipes, gas lines, and underground wiring before drilling.

STEP 2: Use a broom or pressure washer to clean the concrete surface prior to bollard installation.

STEP 3: Study the site plans to locate and mark the precise center point of each bollard.

STEP 4: Keep the bollard in its protective packaging. Place the bollard over each center point marking so that the bollard's middle coincides with the center point.

STEP 5: Use chalk to create drill-markings for each bolt. For secure installation, ensure there is a minimum radius** of solid concrete around each mark. Remove the bollard. *Note: Be sure to make any necessary adjustments to the orientation now. Once drilled and installed, there is no way to change the layout of bolt patterns for the bollard. Determine a consistent sight line first when installing multiple bollards.*

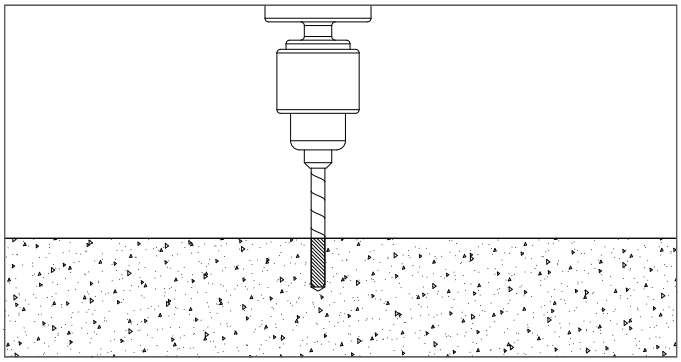
**Refer to specific product drawing for sizes*

***Concrete insert manufacturers such as www.ucanfast.com recommend a radius of 9"*

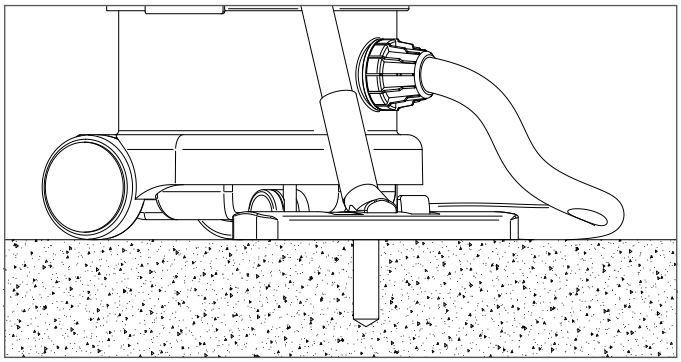
Bolt Down Bollard Installation

Flanged Surface Mounting

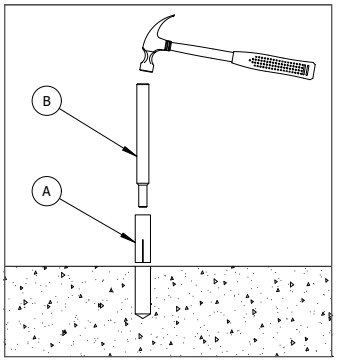
STEP 8



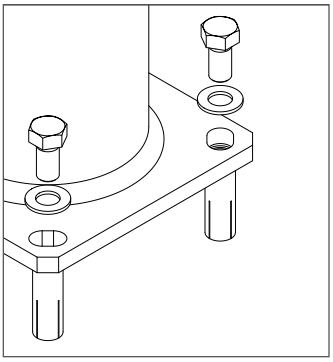
STEP 9



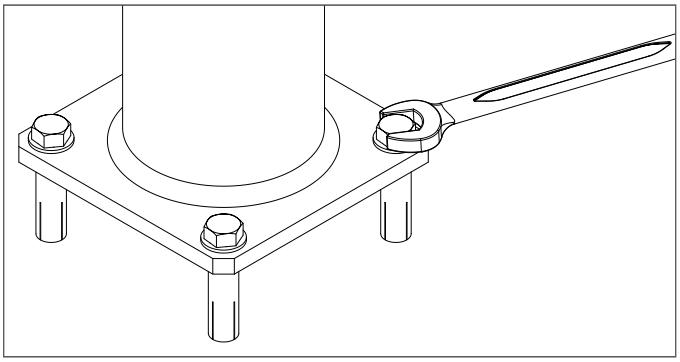
STEP 10



STEP 12



STEP 13



Drill the Hole

STEP 6: Tap a pilot divot hole in the center of each mark.

STEP 7: Set the depth control on the hammer drill (or rotary hammer). Depth control settings will differ based on the bollard model. Refer to product drawing to determine the specific depth control settings.

STEP 8: Drill holes to the required diameter and depth based on the bollard model. Refer to product drawings to determine specific measurements.

Secure the Bollard

STEP 9: Clear the hole of all debris and/or standing water using the vacuum.

STEP 10: Tap the drop-in insert **(A)** into the hole with the slotted end facing down, and drive it down until its top sits flush with the concrete surface. Insert a setting tool **(B)** into the threaded hole, then hammer down. This will cause the internal expansion plug to set the concrete insert in place. *Note: If a proper setting tool is not available, an equivalent flat-end punch can be used.*

STEP 11: Keep the bollard in its protective packaging. Carefully set the bollard base over the installation position so that the bollard's bolt holes are directly on top of the drilled holes and concrete inserts. When ready to install, remove the protective packaging.

STEP 12: Place the washers over the holes on the bollard and set the bolts into place.

STEP 13: Use a wrench to tighten the bolts until secure. Tighten bolts evenly in a cycle.

Inspect the installation. Abrasions should be covered as soon as possible. For damage repair or other servicing needs, please contact Reliance Foundry's sales department.