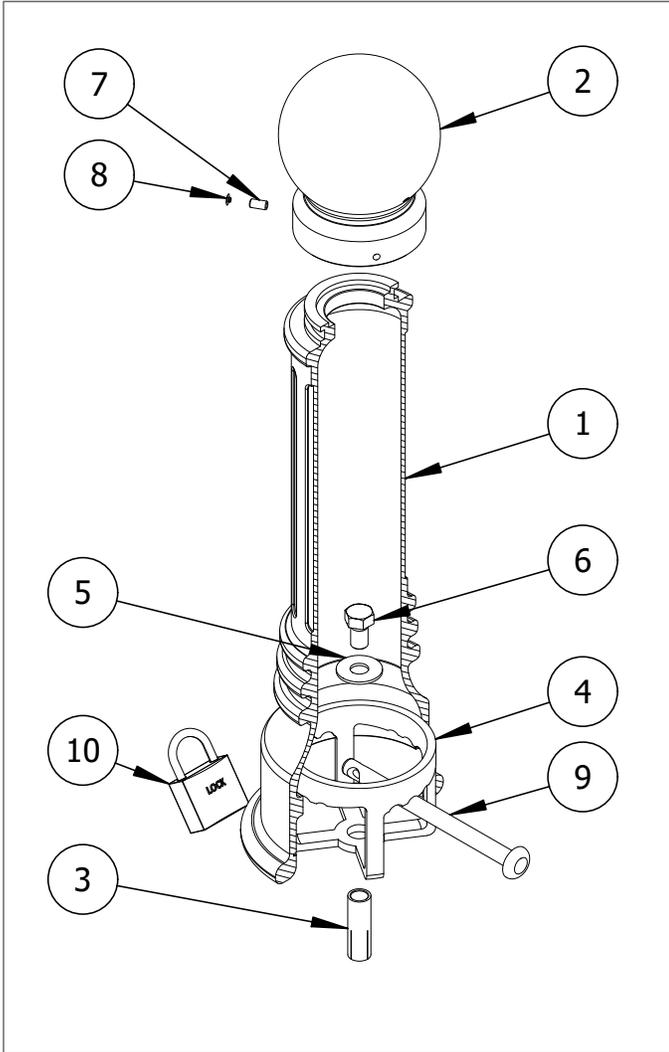


Removable Bollard Installation

Drop-In Concrete Insert

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 Base	1
2	Bollard Cap	1
3	Drop-In Concrete Insert 3/4"	1
4	Removable Mount 1"	1
5	Washer 3/4"	1
6	Hex Nut 3/4"	1
7	Hexagon Socket Set Screw	3
8	Plastic Plug	3
9	Lock Pin	1
10	Padlock (optional)	1

Installation Equipment

3/16" Hex Key	Chalk
1-1/2" Wrench	Hammer
1" Masonry Drill Bit	Vacuum
Broom/Pressure Washer	Measuring Tape
Hammer Drill or Rotary Hammer	Level
3/4" Insert Setting Tool (or equivalent)	

-  To protect the finish, keep bollards in original packaging until exact moment of installation.
-  Handle with care to avoid scratching or damaging bollard surfaces.
-  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.

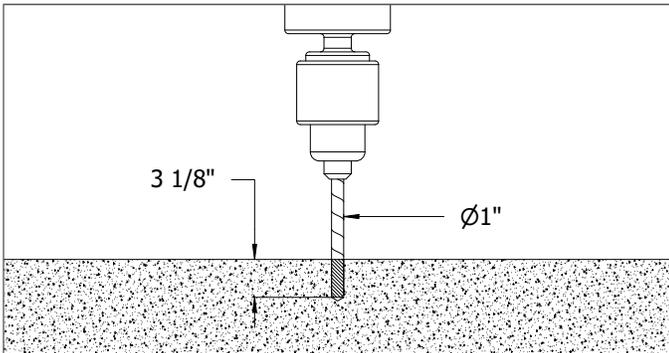
STEP 3: Study the site plans to locate and mark the precise center point of each bollard. For secure installation, ensure there is a minimum radius* of solid concrete around each mark.

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

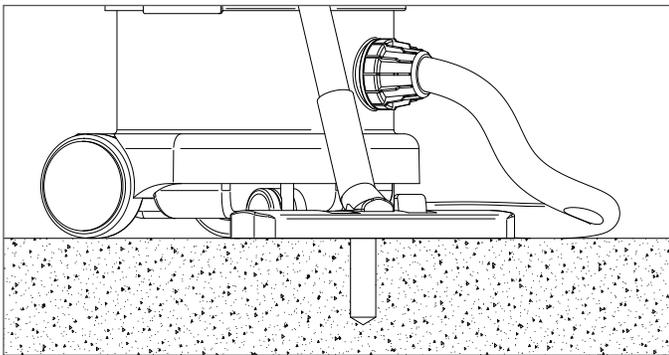
Removable Bollard Installation

Drop-In Concrete Insert

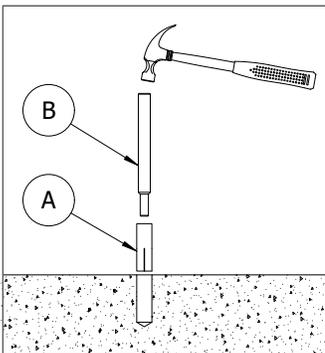
STEP 6



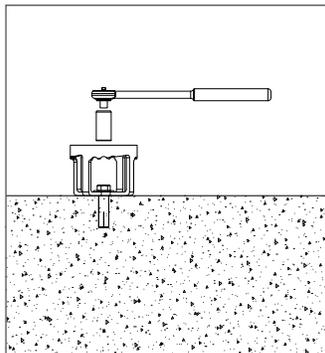
STEP 7



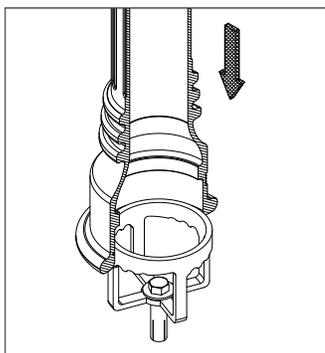
STEP 8



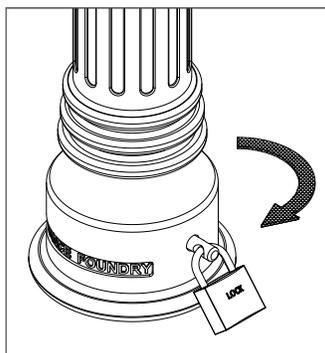
STEP 9



STEP 11



STEP 12



Drill the Hole

STEP 4: Tap a pilot divot hole in the center of each mark.

STEP 5: Set the depth control on the hammer drill (or rotary hammer) to 3-1/8". If depth control is not available, mark 3-1/8" on the masonry bit.

STEP 6: Drill a hole that has a 1" diameter and 3-1/8" depth. Drill on high speed, using the hammer function if available.

Secure the Bollard

STEP 7: Clear the hole of all debris and/or standing water using the vacuum.

STEP 8: 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 9: Place the mount on top of the concrete insert so that the center holes line up. Place the washer over the top of the center hole. Insert the 3/4" bolt and use a wrench to tighten until the mount is secure.

STEP 10: Keep the bollard in its protective packaging. When ready to install, remove the protective packaging.

STEP 11: Set the bollard base upright and place it over the mount. Ensure that the bollard base is centered over the mount.

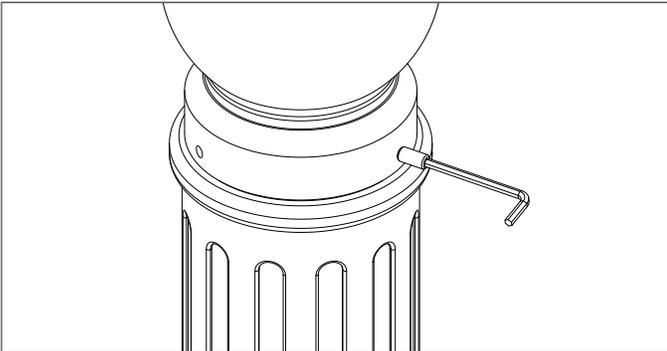
STEP 12: Insert the lock pin through the holes of the bollard base. Twist the bollard in a clockwise motion to secure into position. Fasten the padlock.

*** Dirt tamping is not required if working on undisturbed soil*

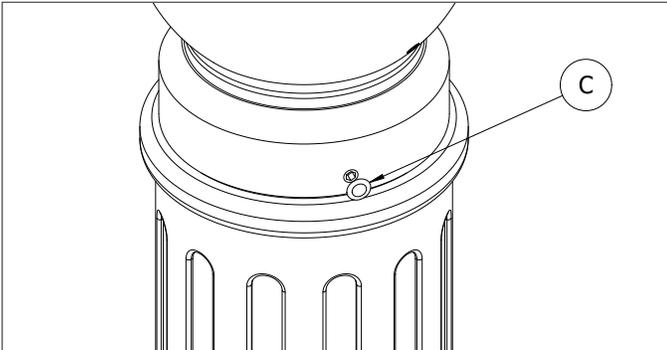
Removable Bollard Installation

Drop-In Concrete Insert

STEP 14



STEP 15



Secure the Bollard

STEP 13: Remove the bollard cap from its packaging.

STEP 14: Remove the bollard cap from its packaging and place it on top of the shaft of the bollard. **Secure and align the cap to the bollard base with the three set screws.** Tighten in equal amounts to ensure that the cap remains centered.

STEP 15: Place the plastic plugs (C) over the set screws.



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.