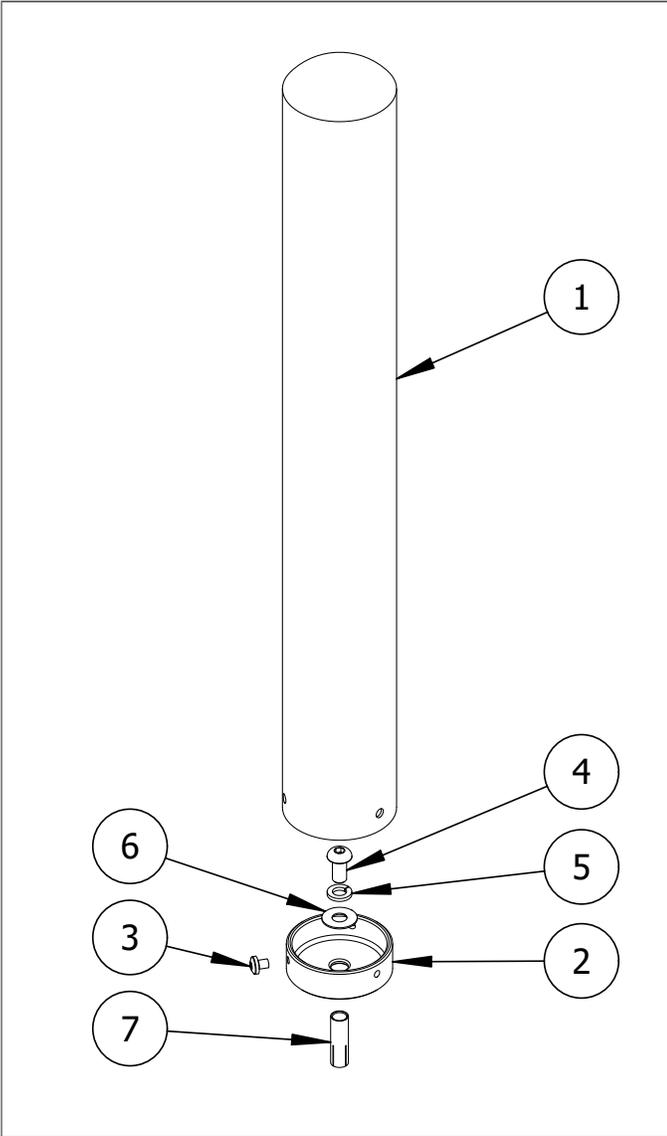


Bolt-Down Bollard Installation

R-7182/R-7183



Installation Equipment

1/2" Masonry Drill Bit	Hammer
1/2" Insert Setting Tool (or equivalent)	Chalk
5/16" Hex Key	Level
Tamper-Resistant Hex Key	Vacuum
Broom/Pressure Washer	Measuring Tape

 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.

Parts List

#	PART	QTY
1	Bolt-Down Bollard	1
2	Bolt-Down Bollard Anchor	1
3	Torx Socket Button Head Cap Bolt M8	3
4	Hexagon Drive Button Head Bolt 1/2"	1
5	Stainless Steel Helical Spring Lock Washer 1/2"	1
6	Stainless Steel Washer 1/2"	1
7	Drop-in Concrete Insert 1/2"	1

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.

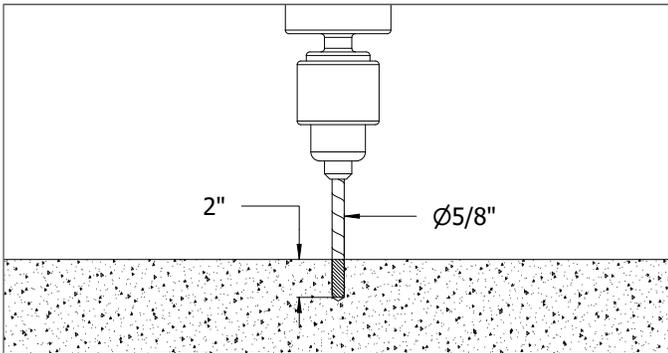
STEP 3: Study the site plans to locate and mark the precise center point of each bollard. For secure installation, ensure there is a minimum radius* of solid concrete around each mark.

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

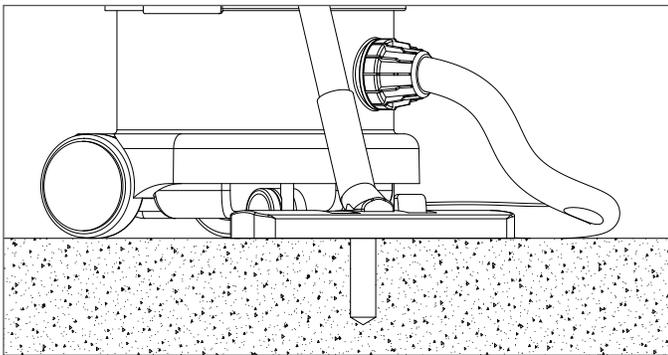
Bolt-Down Bollard Installation

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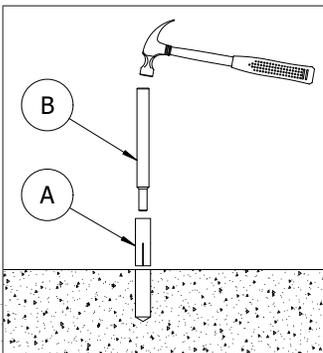
STEP 6



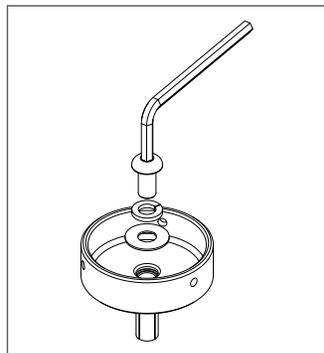
STEP 7



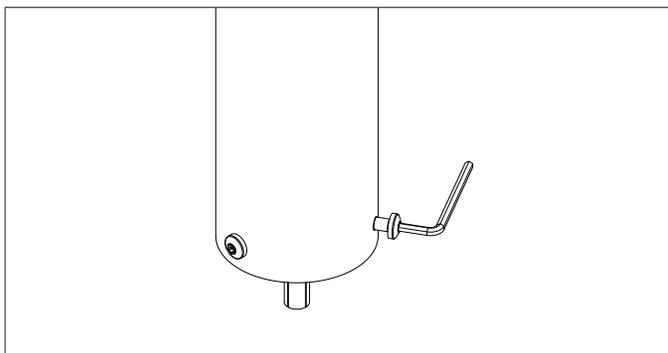
STEP 8



STEP 9



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 2". If depth control is not available, mark 2" on the masonry bit.

STEP 6: Drill a hole that has a 5/8" diameter and 2" depth. Drill on high speed, using the hammer function if available.

Secure the Anchor

STEP 7: Clear the hole of all debris and/or standing water using the vacuum. Use a brush to remove any remaining particles.

STEP 8: Tap the drop-in insert (A) into the hole with the slotted end facing down, and tap 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: With the anchor's open side facing up, center it over the concrete insert. Place the stainless steel washer and spring lock washer over the center hole of the anchor. Insert the hex bolt and use a 5/16" hex key to secure.

Secure the Bollard

STEP 10: Keep the bollard in its protective packaging. Carefully place the bollard near the installation position. When ready to install, remove the protective packaging.

STEP 11: Set the bollard upright and maneuver it so the center lines up with the hole in the anchor.

STEP 12: Once in place, rotate the bollard until the three holes at the base line up with the three holes on the outside collar of the anchor. Insert the torx bolt into each hole and fasten with a special torx key.



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.