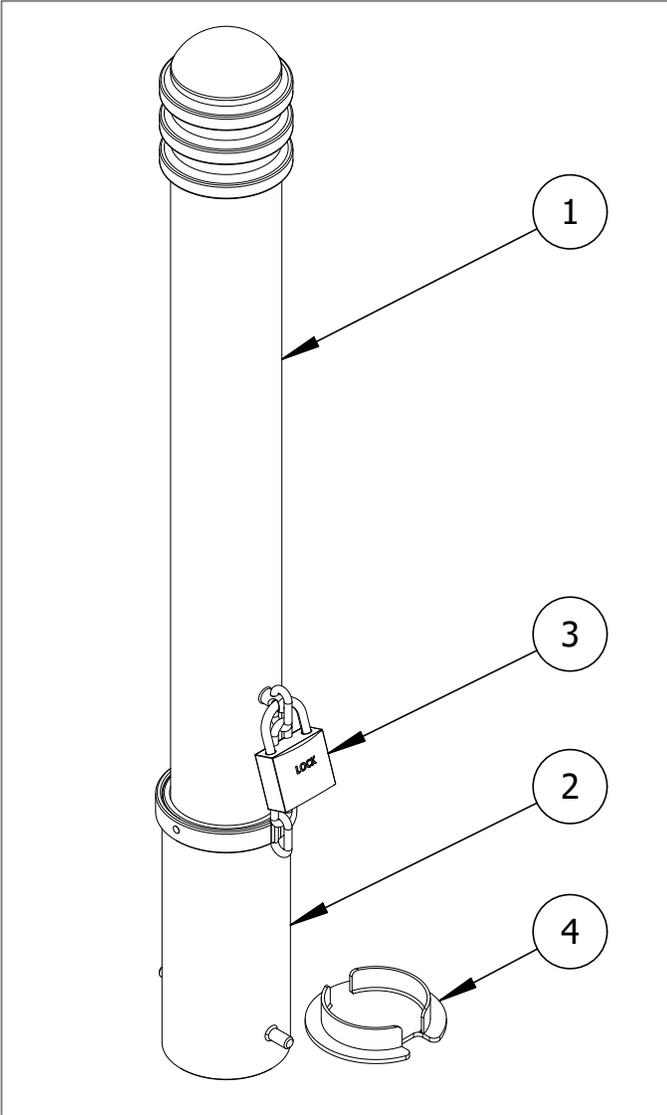


Removable Bollard Installation

Receiver with Chain

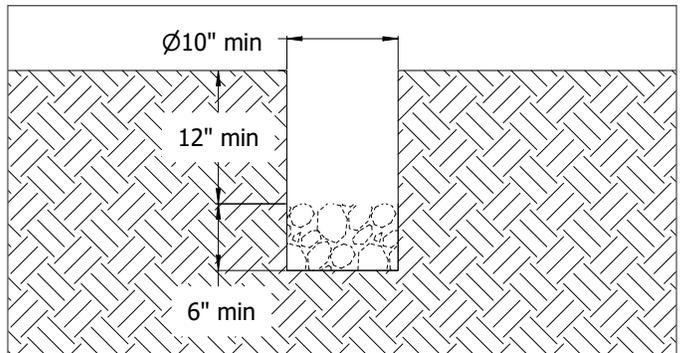
Bollards shown in the diagrams may not be the same model as the bollards shipped in this order. This does not affect the integrity of the installation.



-  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.
-  Consider local soil conditions before proceeding with bollard installation.

Before Installation

- STEP 1:** Study the site plans and mark the intended location of each bollard on the plan.
- STEP 2:** Always check for hazards such as water pipes, gas lines, and underground wiring before digging.
- STEP 3:** Please consult your local Building Code Department to determine the recommended depth below the frost line for digging in your area. Choose a minimum of this or 12", whichever is greater. Then add a minimum of 6" for holding the drain rock.* This is the total depth. The diameter of the hole should extend to a minimum of 10".



** Recommended depth for drain rock is a minimum of 6". Depth will also depend on local soil conditions, weather conditions, and engineering requirements.*

Parts List

#	PART	QTY
1	Removable Bollard	1
2	Receiver	1
3	Padlock (optional)	1
4	Receiver Cover (optional)	1

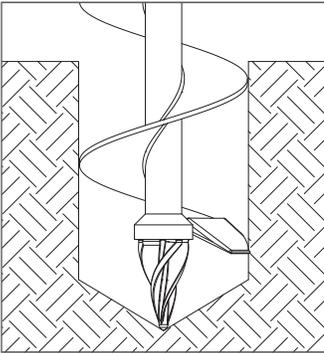
Installation Equipment

Auger	Chalk/Marker
Dirt Tamper	Level
Measuring Tape	

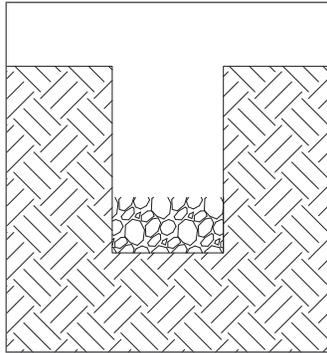
Removable Bollard Installation

Receiver with Chain

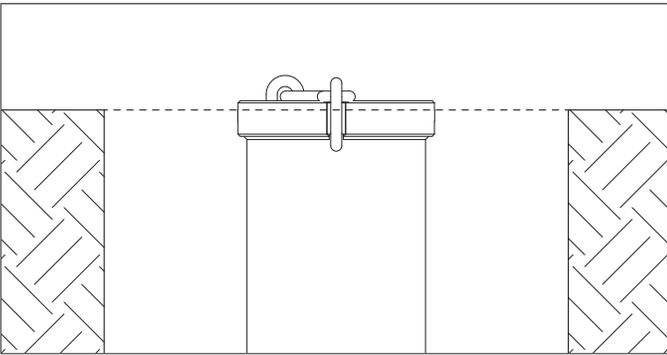
STEP 4



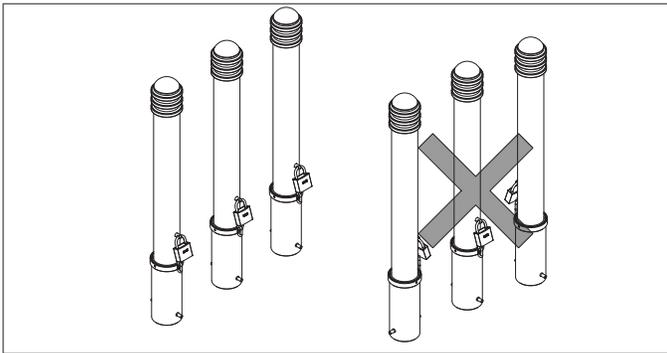
STEP 6



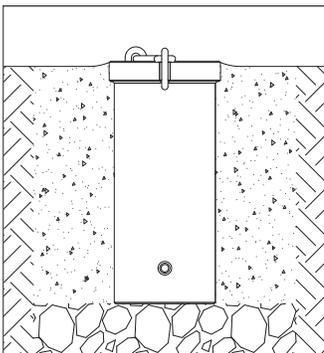
STEP 8



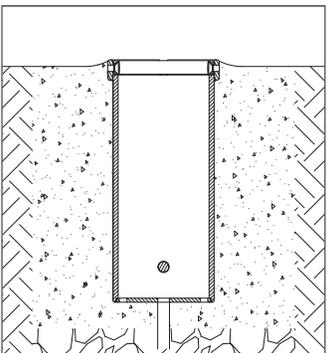
STEP 9



STEP 10 (A)



STEP 10 (B)



STEP 4: Center an auger on the installation mark and bore a hole to the required measurements.

STEP 5: 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.

STEP 6: Prepare the bollard and receiver for designated location. Keep the bollard in its protective packaging. Add the drain rock to the excavation site, keeping in mind that the receiver will be installed so that the bottom edge of the receiver plate will be level with the finished surface of the concrete grade. A slight berm is recommended to help with water drainage.

Prepare the Concrete

STEP 7: Ensure that the proper ratio of water and concrete mix is used. The concrete should have a similar texture to moldable clay.

STEP 8: Place the chain of the receiver inside the receiver. Lower the receiver into the designated location so its top is above the surface grade. This is recommended in order to create a slight berm with the concrete. *Note: If necessary, try dry fitting the bollard (with packaging still on) into the receiver and use a level to ensure it is plumb before proceeding with pouring concrete.*

STEP 9: Be sure to orient the receiver in such a way that its chain will point in the desired direction. **It is recommended that the orientation of all receivers be the same.** If adding decorative chains between bollards, ensure the chain eyes and padlocks are positioned in the same direction as the chain is intended to flow.

Pour the Concrete

Before pouring the concrete, determine if your local frost line is less than or greater than 12". When pouring concrete, be sure to pour it evenly. The concrete should also be slightly raised up towards the top edge of the receiver plate to create a slight berm.

STEP 10 (A): If the local frost line is less than 12", simply pour the concrete into the site.

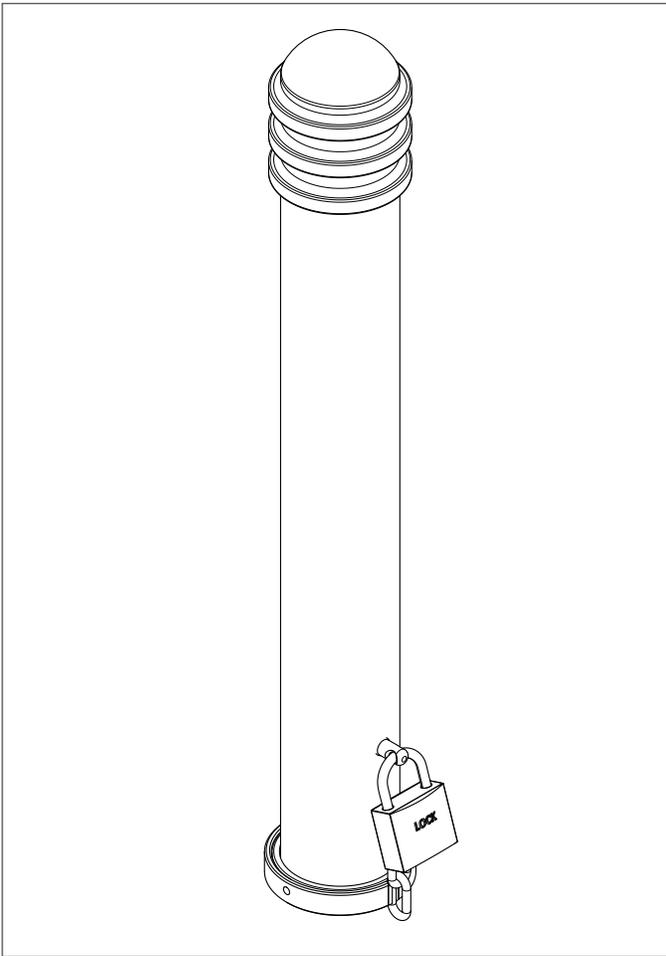
STEP 10 (B): If the local frost line is greater than 12", pour the concrete into the site and then provide adequate drainage by piping through the concrete and connecting to the drain rock layer underneath.

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

Removable Bollard Installation

Receiver with Chain

STEP 13



STEP 11: Allow the concrete to cure for a minimum of 2–3 days. *Note: Moisture in the environment and cool temperatures can significantly slow the process.*

Secure the Bollard

STEP 12: Keep the bollard in its protective packaging. After ensuring the concrete surface has fully cured, carefully place the bollard near the installation site.

STEP 13: When ready to install, remove the bollard's protective packaging and lower it into the receiver. Lift the chain of the receiver up to the stud and use a padlock to connect the two together. Fasten the padlock.



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.