

A. BOLLARDS PROVIDED WITH BASEPLATE FOR SURFACE FIXING

Additional equipment needed:

- power drill with $\varnothing 8$ mm bit
- no. 4 mechanical or chemical anchors M8
- no. 4 washers M8

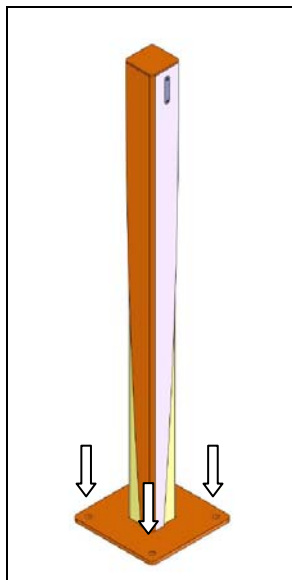


Fig. 1

1. Make sure that the ground is level and solid enough (concrete, asphalt, stone or porphyry are all suitable materials).
2. Drill in the ground four holes concentric with the pre-drilled holes in the four corners of the baseplate.
3. Fix the baseplate with four mechanical or chemical anchors (Fig. 1) and washers.

B. BOLLARDS PROVIDED WITH SUPPORT FOR GROUND EMBEDDING

First case: concrete, asphalt, stone or porphyry paving

Additional equipment needed:

- pneumatic hammer or core drilling machine
- quick-setting cement

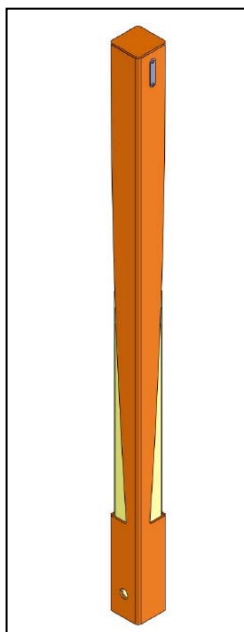


Fig. 2

1. Drill a hole of appropriate size in the ground (Fig. 2):
 - $\varnothing 120$ mm hole for 70x70 mm bollard
 - $\varnothing 150$ mm hole for 90x90 mm bollard
2. Pour quick-setting cement into the hole.
3. Insert the lower end of the bollard into the hole (see Fig. 3).

Tip: to improve fixing tightness, a rod iron can be inserted through the two $\varnothing 20$ mm holes on the lower end of the bollard (see Fig. 4a and Fig. 4b). The rod iron is not supplied; it should be 1-2 centimeters longer than the side of the bollard base.
4. Plumb-line the bollard and position it so that its visible length, from the top to the ground level, is 998 mm.
5. Leave the cement to set and to harden.



Fig. 3

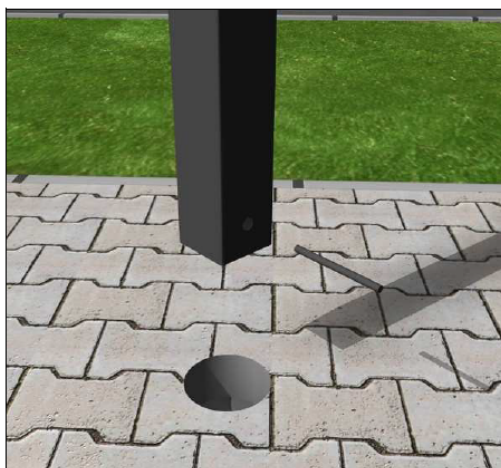


Fig. 4a

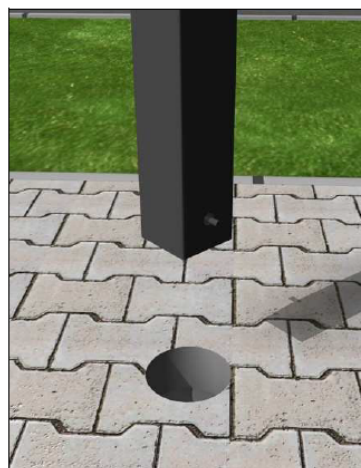


Fig. 4b

Second case: loose ground (grassland, sandy soil et cetera)

Additional equipment needed:

- shovel
- quick-setting cement

1. Dig a hole in the ground; it must be at least 300 mm long, 300 mm wide and 400 mm deep.
2. Pour quick-setting cement into the hole.
3. Insert the lower end of the bollard into the hole.
Tip: to improve fixing tightness, a rod iron can be inserted through the two $\varnothing 20$ mm holes on the lower end of the bollard (see Fig. 4a and Fig. 4b). The rod iron is not supplied; it should be 1-2 centimeters longer than the side of the bollard base.
4. Plumb-line the bollard and position it so that its visible length, from the top to the ground level, is 998 mm.
5. Leave the cement to set and to harden.