

INSTALL DWG

TOWN AND PARK FURNITURE



B9 'WHARF' BOLLARD: B9/SM Surface and B9/SS Sub-surface mount

Install bollard in above ground situations using 4 **stainless steel** max.12mm stud chemical or expansion anchors with min. 100mm penetration into concrete footing. ***Do not exceed max. 12mm stud size as socket access is limited within integral bolthole recesses.** For important details on expansion and chemical anchors see **anchoring recommendations.**

A SURFACE MOUNT: Install unit direct to concrete pavement.

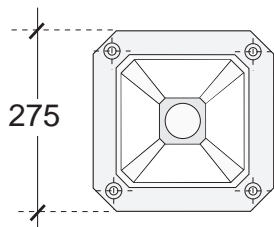
B SURFACE MOUNT: Install unit through pavers (on cement mortar bed) onto sub-surface footing. Suggested minimum footing for **B9/SM Surface mount:** 500 (L) x 500 (W) x 220 (D)*.

C SUB-SURFACE MOUNT: A below-ground keying detail allows the unit to be installed into a sub-surface footing. Suggested minimum footing for **B9/SS Sub-surface mount:** 500 (L) x 500 (W) x 220 (D)*.

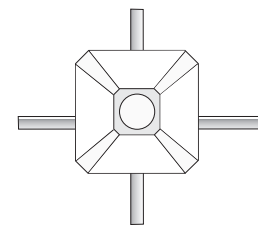
***Subject to on-site ground conditions.**



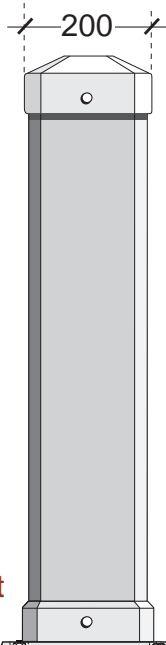
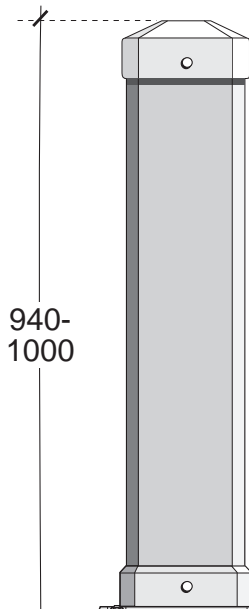
B9/SM



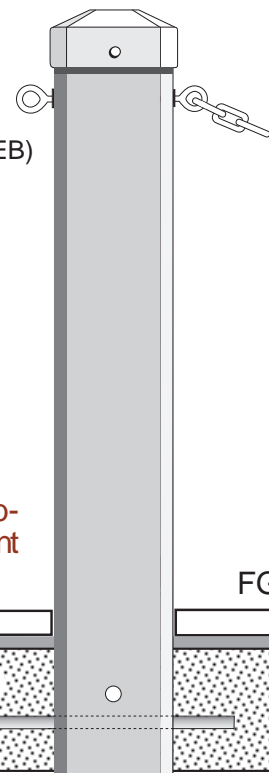
PLAN VIEWS



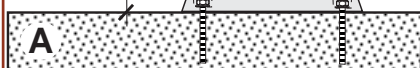
ELEVATIONS



optional eyebolts (/EB)

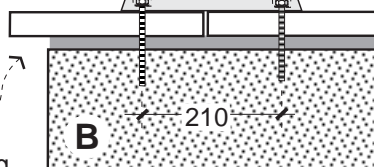


FGL

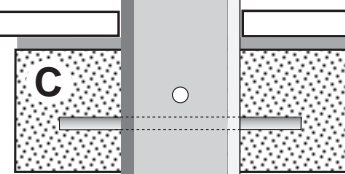


pavers shown on mortar bed over footing

B9/SM
Surface mount



B9/SS Sub-surface mount



***NOTE:** Ensure base of timber bollard projects below base of concrete footing to allow adequate draining.

LAST UPDATED: 8.05

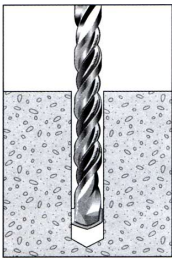


ANCHORING RECOMMENDATIONS:

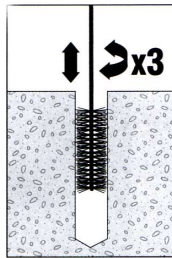
Town and Park Furniture recommends the use of **stainless steel** masonry anchors ONLY, with chemical or expansion anchors being the preferred methods.

The following anchor installation summary gives recommendations re hole preparation, anchor installation and securing of the fixture: ***Do not exceed the max. stud size recommended for each product type as socket access may be limited within integral boltholes recesses. Refer to individual product install drawings for max. stud size recommendations:**

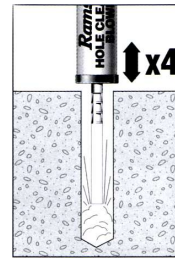
1. TYPICAL HOLE PREPARATION:



Drill hole using correctly sized rotary hammer carbide bit to the specified depth in solid substrate.



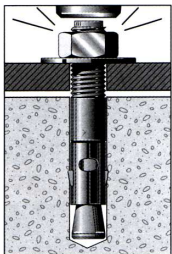
a) Clean hole with correct size hole cleaning brush with stiff nylon or wire bristles. Using a push/pull and twisting motion, ensure the sides of the hole are scrubbed at least 3 times for full depth of hole.



b) Remove debris, dust etc. from the hole using a hole cleaning blower with at least 4 swift pumps. Alternatively, a strong blast of compressed air may be used.

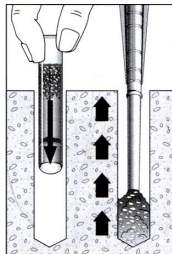
2. ANCHOR INSTALLATION:

EXPANSION ANCHOR

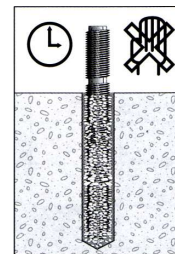


Insert anchor into hole flush against fixture.

CHEMICAL ANCHOR



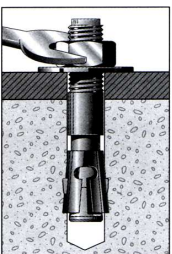
a) Insert correct sized chemical capsule or inject chemical mortar without creating air pockets in the hole.



b) Drive stud to bottom of hole. Do not move the stud while chemical mortar is curing. See manufacturers data for setting times.

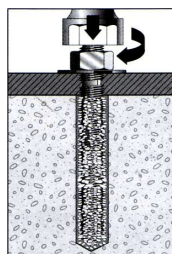
3. SECURING THE FIXTURE:

EXPANSION ANCHOR



Tighten with a spanner. For optimum anchor performance use a torque wrench.

CHEMICAL ANCHOR



Attach fixture and tighten nut in accordance with recommended tightening torque.

The above anchor installation summary has been kindly provided by: RAMSET Fasteners (Australia) Pty Ltd. For further information including full technical data sheets visit..... www.ramset.com.au