





# Small Format Clay Paver Laying Guide

Running Bond

#### **Paver Patterns**

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Weave Variation

Herringbone 90°

Herringbone 45°

# **Materials Needed**

- Pavers
- Gravel Roadbase
- (1m<sup>3</sup> covers 10m<sup>2</sup> at a compacted depth of 100mm)
- Bedding Sand (1m<sup>3</sup> will cover 30m<sup>2</sup> at a depth of 30mm)
- String lines, tape measure and pegs
- Spirit level
- Two Screed Rails two flat steel bars (Approx. 3m x 50mm x 2mm)
- 2-3m long concreter's screed
- Broom, rake and shovel
- Plate vibrator compactor
- Edge restraints (concrete, cement or timber)
- Cutting Equipment Paver Splitter/ Masonry Brick Saw

Your paving kit comes complete with a 1.5m long screeding board, two 1.5m long screeding irons, a flat length of timber for compacting and a rubber mallet.

If you have any questions at all, Austral Bricks customer service representatives are always on hand to help out or offer advice.

### 1. Excavating

Remove all vegetation, rubble and surplus soil from the selected area. A metal headed rake is ideal for excavation. This will give you a formation on which to work. The sub base goes over the sub grade. If using sub base for domestic driveways, minimum 100mm of limestone or roadbase is recommended. For patio and pedestrian areas, cemented stabilised sand may be used. See Figure 1. It is recommended that all large format pavers when used in vehicle areas are bedded in either a sand and cement mortar bed or fixed using a flexible adhesive.

# 2. Compacting

Compact the sub base with a hand held / mechanical compactor to a maximum deviation of 10mm from true level. Though hand-held compactors will be adequate for small jobs, mechanical compactors should be hired for driveways and larger areas.

After compaction, cover the sub base with 20 to 50mm of well graded coarse bedding sand. Ensure that the sand is relatively dry. With 3% clay the bedding sand provides a barrier and protects the pavers from harmful salt attacks. Concreting sand is suitable for this purpose. NB. Compactor not included in DIY paving kit. See Figure 2.

# 3. Levelling

Place the screeding board along the base of a wall or straight vertical structure. This will give you a level for the bottom of the paving bricks. This level is called the benchmark. See Figure 3.

### 4. Screeding

Lay the screeding board at right angles to the benchmark to create a level for the screeding irons. For drainage purposes, always allow for a slight fall-away from the edge of the wall. This should be about 25mm over a distance of three metres. (Use your spirit level to measure fall-away. Bubble should reach outer line.) Repeat the above process at one screeding board length along the benchmark. These two indentations will be your height marks. See Figure 4.



#### 5. Screeding continued

Continue to push the screeding board into the sand along the full length of the area to be paved, maintaining the level of the first height marks.

Starting at the benchmark, place the screeding board on the screeding iron and drag it back and forth until the sand between the screeding irons is smooth and level. Move the screeding irons along the height marks, and continue to level the sand with the screeding board. See Figure 5.

### 6. Screeding continued

Further Screeding Repeat steps (3) and (5) to level the next section of sand. Allow one of the height marks to slightly overlap the area you have already levelled. When the entire area is level, you are ready to use your pavers. Look for any hollows or bumps in the levelled sand. This stage may be your last chance to smooth them out. See Figure 6.

#### 7. Selecting Patterns

Austral Bricks pavers are available in a wide range of colours and shapes. See page 16. However, for vehicular traffic, only herringbone patterns should be used.

# 8. Gauging

Determine the average length and width of pavers by measuring the cumulative dimensions of 20 pavers and dividing by 20. The laying gauge is then determined for the pattern selected by using the average dimensions determined together with a nominal joint width of 2.3mm.

Before laying pavers, a grid of string lines not more than 1 metre apart should be set up covering the area to be paved. No contact should exist with adjacent pavers. See Figure 8.

#### 9. Trimming

After whole pavers have been laid, the pavers are cut for use at the edges, corner, curves and obstructions if any. This can be effectively achieved when safely using a diamond blade brick saw or a masonry saw. See Figure 9.

### 10. Edge Restraint

The most effective way to keep edge pavers in position is to set them in cement. Take up the last row of pavers and drag away 20cm of sand to a depth of 6cm (10cm for driveways).

Level out the cement mortar and place the pavers in position by lightly tapping them. Do not use the paved area for at least 24 hours after the cement is laid. A driveway should not be used for 48 hours. See Figure 10.

#### 11. Jointing Sand

Clay pavers are designed to function with sand completely filling the vertical joints. This is essential for effective lock-up and shear transfer. Spread dry sand over the paved area and brush it into the vertical joints with a stiff bristled broom. Please clean the area of excess sand before final compaction. See Figure 11.

#### 12. Final Compaction

Use the rubber mallet and the flat length of timber provided to compact small areas. However for larger area and driveways, it is advisable to use a plate compactor and protect the pavement with a layer of excess jointing sand (approx 5 to 10mm) and plyboard to prevent it from coming in direct contact with the paving. Top up the joints with jointing sand after compaction. See Figure 12.

# Large Format Clay Paver and Natural Stone Laying Guide

#### **Paver Patterns**



Running Bond

Even Spaced

# 1. Calculate the pavers required to cover the total area:

300 x 300mm = 11 pavers to the square metre 400 x 400mm = 6.25 pavers to the square metre 600 x 300mm = 5.5 pavers to the square metre 400 x 200mm = 12.5 pavers to the square metre Allow approximately 5% extra for cuts and wastage.

# 2. Ensure area to be paved is well drained

If the area is not well drained, install agricultural drainage pipe at approximately 2 metre centres.

### 3. Bedding

#### Landscape Paving

For residential paving (including pool surrounds, pathways, patios and balconies), stone should be laid on a suitable base course with a 30-35mm level screeded sand base. Initial compaction of sand base should allow for movement downward to absorb thickness variations that can occur upon final compaction of installed pavers.

Best results are achieved on a rigid concrete base and wetbedded or the use of a suitable tile adhesive (this will allow for minor variations in the dimensions and thickness of the stone). The compacted base course material should include correct bedding layers and should be uniform for water drainage.

#### Driveways

60mm thick stone pavers must be laid on a suitable base course with a 30-35mm level screeded sand base for an application with vehicular traffic or for commercial purpose.

40mm thick stone pavers must be laid on a rigid concrete base and wetbedded or the use of a suitable tile adhesive (this will allow for minor variations in the dimensions and thickness of the stone) for an application with vehicular traffic or commercial purpose.

### 4. Laying the pavers

Nominal widths of 3-4mm gaps between the pavers will be obtained using regular practice of holding a paver against the previous paver and allowing it to lightly drop down into its place.

#### 5. Jointing

Dependant on flexible or rigid application, joints are to be filled with a fine sand or concrete jointing material.

#### 6. Sealing

Sealing is recommended for all Natural Stone products. We recommend the use of a suitably qualified professional sealing company. The use of incorrect sealing products or application methods may compromise the stability of Natural Stone.

Pre sealing of limestone is recommended prior to installation around a salt water pool.

**Note:** Although the above advice is determined by adherenceto current Australian Standards, before undertaking any paving project, please consult a licensed tradesperson.

Alternatively, contact Austral Bricks and we will assist you with the selection of the most appropriate product for your application.

