

# Installing Paving Stones



## WHAT YOU NEED

- Pavers
- Base Materials
- Sand
- Edge Restraints

## TOOLS

- Garden Hose
- Level
- Wheel Barrow
- Stakes
- String Line
- Screeding Tools
- Plate Compactor
- Rake
- Shovel
- Broom



**1 CREATE OUTLINE**  
The first step is to take your completed design and transfer it onto the ground where you will be installing your patio. You can use spray paint to mark the outline, using a garden hose for guidance on the curved areas and long boards for straight areas.



**2 SET ELEVATIONS**  
Next, use a 2x4, stakes and level to set the slope of your patio (a slope of approximately 1" to every 8 ft. is usually ideal). Now, set your stakes, and string lines to mark the top of finished patio.



**3 EXCAVATE**  
Using your grid work for stakes and guide strings, excavate material below the string lines to the depth needed. **Note:** Before any digging, contact your local utility companies for the location and depth of pipes, cables and conduits.



**4 SPREAD GRANULAR BASE**  
You are now ready to spread and compact the coarse granular base.



**5 COMPACT BASE**  
The granular base should be leveled and compacted (use a plate compactor) in layers of not more than 4". Wet, but do not soak the gravel base while compacting. Level the base to approximately 3" below the desired surface level. Make sure the base is level and conforms to the shape and elevation of the finished job by measuring down from the string lines you have established on the stakes.



**6 INSTALL EDGE RESTRAINT**  
To prevent lateral movement of the pavers, edge restraints should be installed on compacted base along all edges which would otherwise be unrestrained. If possible install edging only on one of two sides of the paving area. After pavers have been placed, install remainder of edging so as to avoid unnecessary cutting.



**7 SPREAD BEDDING SAND**  
Begin screeding (spreading) a 1" layer of sand; this layer is called the sand bed. Lay your screed guides (1" pipe, electric conduit or wood strips) onto the compacted base. Set the proper height of these guides by pulling a string across the area to be paved at the finished grade level. The top of the screed guides should be 1-3/8" down from the string. A little sand can be packed around the guides in order to set them in place. Now fill the area with sand and slide the 8 to 10 foot screen board along the guides causing the sand to become smooth and level. Once this is complete, pull out the screed guides and fill voids with sand. Smooth out this sand with a trowel or small board. Do not walk on or work from the screeded sand.



**8 LAY PAVERS**  
After screeding the sand you can begin laying your pavers, using the area's straightest edge as your starting point. Pick a starting point where you can make the pavers fit against the longest straight edge or the longest combination of straight edges as long as they are at right angles to each other.

\* Do not use masonry or fine sand.



**9 KEEP PAVERS SQUARE**  
To keep the pavers straight and square as you work, use a string line running in both directions as your guide. This is easily done by measuring out lines in multiples of 3, 4 and 5 with the line marked "three" remaining stationary during the squaring process. (See diagram below). Line "four" should be moved until "four" and "five" intersect, causing a right angle in the "three-four" corner. If your pavers start to get off square, you can get them into proper position by gently tapping them towards the string line.



## 10 CUT TO FIT

Many of the pavers that butt into the soldier course (strip of pavers all facing the same direction) will need to be cut to fit properly. Using a concrete saw or guillotine splitter, cut each paver separately - marking it, removing it, cutting it and placing it - before proceeding to the next one. Install the soldier course as you go along.



## 11 COMPACT PATIO

Sweep off the surface completely and use the plate compactor to tamp the pavers to a uniform level. Run the compactor in a parallel direction, across the pavers, overlapping on each pass. make a second series of passes in a perpendicular direction.



## 12 SPREAD SAND

Sweep concrete sand into all spaces between the finished pavers, repeating the process until all joints between the pavers are filled. Repeat this process with more dry sand in a few days.