

Brick Patio

Build a great patio in your spare time. Using the right materials and some hand tools you can build a great patio or walkway without mortar.

Materials needed and determining how much you'll need

Brick pavers – these are different from the brick used on homes. These are solid, without holes. Sizes and styles vary from manufacturer to manufacturer. Choose the style and size that best match your home brick to give a more uniformity appearance.

Determine the square feet (length x width) of the area you want to pave.

Estimate the number of pavers

needed:

For 4"x8" pavers—4.5 pavers per sq. ft.

For 3-5/8"x7-5/8" pavers—5.2 pavers per sq. ft.

For 3-3/4"x7-1/2" pavers—5.1 pavers per sq. ft.

Add 5% extra for chipped or broken pavers.

Example: A 10' by 20' patio = 200 sq. ft. x 4.5 pavers/sq. ft. = 900 pavers

An additional 5% (900 x .05) = 45 pavers

Total needed so far = 945 pavers

Typically, you should also include an additional 1-1/2 bricks per linear foot of edge for cutting.

Example: linear footage = 10+20+20+10 = 60 linear feet

60 x 1.5 = 90 pavers

945 + 90 = 1035 total pavers needed for the job

Sand and Crushed stone or gravel. – Use only washed concrete sand. These are always measured in cubic yards (1 cubic yard = 27 cubic feet). For any type of paving project, you will always use a 1" depth of sand.

Sand - To determine the number of cubic yards of sand, multiply the square footage by .00309. Example: 200 sq. ft. patio x .00309 = 0.62 cubic yards of sand.

Crushed stone - you will use a 4" depth of crushed stone. To determine the cubic yards of crushed stone needed to create a 4" base, multiply the total square footage by .01235.

Border material – Choose from: Brick or wood. **Measure the linear foot** of open edges—those not up against a house, curb, driveway, etc. This is the number of feet of edging material you will need. If you plan to edge with brick standing on end (soldier position), calculate one brick for each 4" of edge.

String and wooden stakes.

Tools:

1. Flat shovel
2. Wheelbarrow
3. Garden hose with fine spray nozzle
4. Hard garden rake
5. Broad-blade chisel, brick splitter or masonry saw for cutting and fitting the brick (the last two are readily available for rent at your local rental store or brick distributor)
6. Carpenter's level
7. Wood "screed" strip—a 2 x 4, at least 3' long (used to create a uniform sand bed depth)
8. Electric drill and appropriate size bit (for wood edging only)
9. Trowel
10. Broom
11. Plate compactor (rented)

Preparing the Area

1. After you're sure the area has proper drainage (1/4" per foot slope away from foundations or other permanent structures), outline the area with stakes and string, and be sure to include the width of your edging material.
2. Use flat shovel to only remove enough sod to provide a flat, level surface to place the crushed stone. Using a plate compactor, compact the soil for an even base.
3. After you compact the soil, place the crushed stone. Compact again; down no more than 4" (depth) at one time. Using a plate compactor, tamp down no more than 4" (depth) of base material at one time. This is a critical step—if not done carefully and thoroughly.
4. Frame the borders – This step is necessary to insure the brick paving remains in place and stays beautiful for years to come. Install, but not anchoring, your edging. Make the pattern simple and easy. Complex designs require significant amounts of cut brick. Once satisfied with the placement of the bricks, anchor the edging by driving spikes at least 8" into the base every 2 to 3 feet. Wood edging, drill holes and drive the spikes through the middle of the wood. For brick edging, dig a trench deep enough the top edge of brick will be flush with the brick surface of the finished patio.

Install the Sand

1. Cut two wood strips to the desired height of sand (1") place them on either side of the patio about 3 feet apart.

2. To eliminate voids, fine mist sand with water and fill the area.
3. Level the sand. Use the wood strips as rails guides to insure uniform sand depth of 1" . Be careful not to walk in or disturb the leveled sand.
4. Remove the rails and fill the indentations with loose sand. Level with trowel.

Lay the Pavers

1. Start in a corner – start where the edge includes other fixed edge. (the house, curb, sidewalk, etc.) Place the brick on the sand about 1/16" to 1/8" gap between each brick and run the brick from the corner along the two edges.
Don't press them into place and do not disturb the sand.
2. Continue to lay the brick, put a string line across the front of your laying edge (every 2 to 3 feet) to maintain alignment. Don't be concerned with small gaps between the paving brick they will be filled with sand
3. Check the level and alignment of the bricks frequently during this install step.
4. Once all the full sized bricks are installed, cut the remaining brick to fill in the pattern of the patio insuring the final edge brick are no smaller than two inches in width.

Finishing the Patio

1. Inspect the patio and make adjustments in bricks or joint alignment. Sweep dry sand into all the open joints to lock the brick patio into place and place a top layer of sand on bricks.
2. Use the plate compactor to gently tamp down the brick. Sweep off top layer of sand.
3. Over the next few days, after a rainstorm and after the sand and brick settle, sweep additional sand into the joints. Or until patio is fully stabilized.

Enjoy!

Take a well deserved rest and enjoy the new patio. This project will enhance the value of the home and brick only looks better with age so you can enjoy it for years to come.

