How To Install
Dry-Laid Flagstone
Patio or Walkway

Complete step by step “How-to” guide for building a dry-laid patio or walkway.

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As there is no single “right way” to install dry laid flagstone, we have found the following to be a solid technique.

Choosing Your Stone

Stone for walkways and patios come in many colors, shapes, textures and sizes. When selecting the stone for your pavement, keep in mind the concept, or idea, that form fits function.

When laying a dry laid patio, one should use a thicker stone that is 3/4” to 2-1/2” thick. Any thinner stone will be subject to cracking. Thinner stones are used when installing stone over an existing concrete slab. Pictured to the right is the Arizona Buff Patio flagstone. As you can see, this stone has irregular edges and may need fitting in order to get the look you desire.

When installing a primary walkway or patio that has high traffic or is an entertainment area, thought should be given to selecting larger and flatter flagstone. Women in high heels, or the leg of a table and chair, find larger, flatter stones more compatible with their needs. When installing a “garden path or retreat”, the use of smaller, more irregular stone is appropriate.

So when choosing a flagstone for your pavement, one should consider the purpose of the pavement. Consider the texture and size of the stone in relation to its intended purpose. How rough or smooth a surface do you want? Bigger patios should use bigger stones, smaller patios should use smaller stones.

Pictured right, the PA Bluestone Tumbled stone makes a nice patio or walkway. Pieces are thick, with rounded edges. Thick enough to place directly in dirt with a solid base, or gaps can be filled with anice decorative gravel. (Use of weed barrier/filter cloth is highly recommended, in that case).

The color of your stone selection is up to you. However, it is suggested that you pick your stone out in person as a stone with the same name can have many variations in color. Also, get enough stone to complete your project as “matching” up to expand next year can sometimes be difficult.
Spread the gravel base over the patio area. Use a long straight 2x4 to “pull” the base material. You can meticulously use the board and a 4’ level to smooth the gravel out at the proper level, or you can pull strings across the area that are tied to wooden stakes at the appropriate elevation, and pull the board just under the string.

Once you are happy with how your gravel base is installed, thoroughly wet/soak the gravel with water and then compact the gravel with either a hand tamper or a plate compactor. As the base material is compacted, this grading procedure should be repeated before the next step.

**Installing The Flagstone**

Laying the flagstone can be tedious as the stones are different shapes and thickness. Leveling them to one another and to your grade, as well as “fitting” them to one another, requires patience. Do not hurry through this.

*Two options:*

Lay the entire area out on the ground, performing the cutting or shaping to fit the stones together first; and then level the stones.

Or, as you lay the stones, cut, fit and level as you go.

**Decide What Type Of Joints You Want Between The Flagstone**

Random Joints: For a more rugged look, use the natural edges of the stone which will create joints varying in size from 1/2” to 3”.

Consistent Joints: For a more elegant look, joints being 1/2” to 3/4”, you can shape the flagstone edges to your desired look. For fitting purposes, a hand-held angle grinder makes it easier to shape the flagstone; or you can use a brick hammer and chisel, along with patience and practice, to get the flagstone to fit your desired look.
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Leveling The Flagstones

Leveling the stones to one another can best be accomplished using a length of a 2x4 that reaches across several flagstones at once, maybe 4, and a rubber mallet. As you set each stone, level it with some loose gravel insuring that the stone is totally supported on its bottom side. Use the hammer head or handle to pack gravel all around each stone. Use the 2x4 across the flagstone making sure that the bottom of the 2x4 contacts all stone. meanwhile, be sure the top of your flagstone is following your established grades. It really is easier than it sounds!

A trick to help maintain your established grade is to stake a 2x4 along the side of the patio at the sloped grade and to level over to your flagstones each time you set a new piece. 2”x4”’s and a 4’ level are important tools here.

Try to use bigger flagstones on the perimeters as they will be more stable. Sometimes you want to use mortar to set the perimeter stones to help prevent them from rocking. Remember, the gravel base was extended out 4” to 6” beyond the patio edge - that too was to help prevent the flagstones from rocking.

Filling The Joints

This is easy, step by step:
- Backfill all around the perimeter of your flagstone patio
- Pack the soil up against the stones
- Clean out any soil that might have migrated into the joints
- Choose your fill material:
  - Gator Dust: A polymer laced gravel that hardens up. It provides a clean look and keeps out weeds and ants.
  - Compactable Gravel: Like the screenings used for the base or a fine crushed granite. This option requires more maintenance over time.
  - Pea Gravel: Provides a nice look but requires more maintenance over time.

If you choose the Gator Dust, read and follow the directions carefully.

If you choose a compactible gravel or dust, simply sweep it into the joints dry, and then soak the joints to settle the material into the joint. Repeat until the joints are completely settled.

Important:

From pallet to pallet of natural flagstone, color can vary. It is always in the best interest to randomly select from different pallets during installation to ensure all colors of the flagstone are distributed evenly.

Stone Plus, and their employees, do not claim to be professional masonry instructors or installers. These installation techniques are suggestions that tend to work with great success.

Stone Plus accepts no responsibility for poor installation or unusual conditions where flagstone is installed. By using this information you agree to hold Stone Plus harmless for any damage or losses resulting from the use of this information.

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