How To Split Stone Using Wedges & Shims



Wedges & Shims (W & S) are one of the oldest and most effective ways to split stone, whether you are trying to persuade a stone to split into a particular size and shape, or are simply reducing the size of a boulder to make it easier to move.

Stone type, shape, size and other conditions can have a significant influence on how any particular stone may split. Follow these steps and tips to achieve the best results:

- The height of your stone determines W & S size required. W & S can split up to 4–6 times the length of the Wedge (e.g., 4" W & S can split a stone 16–24" high/thick).
- W & S need to be placed every 4–6" along the "top" of the split plane. When using W & S that are 3/4" or smaller, drill holes no more than 4" apart in the stone closer for hard to split or precision work. Larger sizes can be placed up to 6" apart.
- Mark placement of the holes and consider using a straight edge if you require a straight line. If splitting a rounded boulder, holes would be drilled in an "arch" across the top of the stone.
- Use a drill bit the same size as the W & S. Holes should always be drilled to the specified diameter, 4–6" apart on center, and at least 1/4" deeper than the length of the Wedge (e.g., 3/4" W & S require a 3/4" diameter hole, 4-1/4" deep); too small can cause the top of the hole to blow out. (continued on other side)

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Wedges & Shims How-To, cont'd

- Hold the Shims together and insert Wedge between them. Make sure the "ears" of the shims sit just above the top of the hole and perpendicular to the split line. About two-thirds of the length of the Wedge should protrude from the top of the hole.
- Once set, start striking the Wedges in sequence with a light hammer, firmly but without forcing, to build even pressure gradually. Listen and look for signs of splitting. Allow the stone to rest occasionally. Pressure, not force, will split your stone. Patience is the key, especially if you are planning on reusing the stone and want it to be in good condition. Clear the area of feet and other obstacles before the stone splits!
- Remove drill holes with Trow & Holden Mason's Chipper.

Tips

- For soft stone or difficult splits, consider drilling holes closer together and/or deeper into the stone to help weaken the stone along the split plane. This may also help increase the splitting capacity of the W & S when faced with a difficult or precise split.
- If removing the top of a stone that is buried, dig a generous trench around the perimeter of the stone. Place W & S horizontally into the stone. For larger boulders, place additional W & S across the top of the stone.
- Shims are made of softer steel so they conform to the hole; this keeps them from moving around while in use. Striking too hard or using a hammer that is too heavy can cause W & S to distort.
- Always wear safety glasses when using any Trow & Holden tool!

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