

Safety for Assembly 105

Screws are sized by length, diameter and threads per inch. For example, 3-1/4-20 would be a 3"-long screw, 1/4-inch shaft diameter, and 20 threads per inch. The number of threads per inch gives the screw its pitch. With each complete rotation, the screw goes in or out of a distance equal to its pitch.

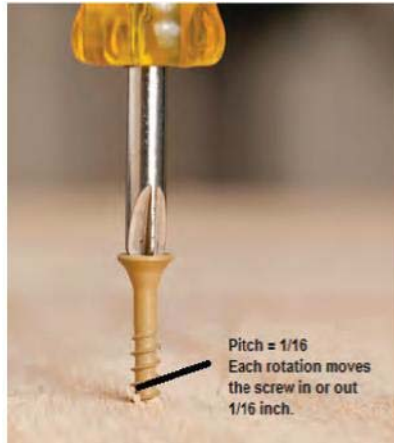


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- a. The pitch of the screw is $\frac{1}{16}$ inch. How far will it go into a piece of oak if it is turned 10 complete rotations clockwise?
- b. The pitch of a screw is $\frac{3}{32}$ inch. How far will it stick out of a piece of oak if it is initially flush and then turned 10 complete rotations counterclockwise?
- c. After an initially flush screw has been turned eight complete rotations counterclockwise, it extends $\frac{1}{2}$ -inch above the surface of the drywall. What is its pitch?
- d. The pitch of a screw is $\frac{3}{32}$ inch. How many complete rotations are necessary to drive the screw $\frac{3}{4}$ -inch into a piece of wood?



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