

# USE A HACK SAW

A hacksaw is a hand tool, and being proficient in its use can be quite helpful. It can be used to brutally hack through metal quickly. But in the hands of a craftsman it can be used with a fair degree of precision, too.

## FLIP OVER FOR YOUR NEXT CHALLENGE



### EARN THIS NUGGET

Use a hacksaw. Tighten the blade and try cutting a variety of materials. If you have a variety of blades, swap them out to see the difference.

LEVEL 1

PERIOD 2

TASK 1

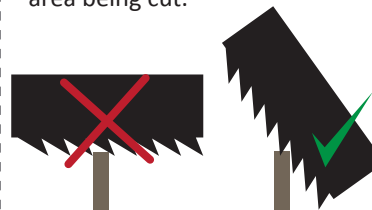
- A hacksaw is one of the family of tension saws. That means, when in use, the frame should put tension on the blade. After use, that tension should be released to prevent warp. It is also a two-handed saw and should always be used with one hand on the handle grip and one at the front.

- There is quite a selection of hacksaw blades available on the market. The greatest variation will be in the number of teeth, measured in *teeth per inch*. Softer, thicker materials require large teeth or less teeth per inch. There are hard steels and situations where you have a thin cross section to saw through, and you'll want a finer blade and more teeth per inch.

- The hacksaw only cuts one way. The blade is designed to only cut in the forward stroke. So the blade needs to be put in the frame with the teeth facing towards the front of the saw.



- Additionally, when sawing thin cross sections you'll find that the saw blade binds and jams very easily. Correct use of the hacksaw is to angle it to maximize the number of teeth that are in contact with the area being cut.



- You cut with the hacksaw using long strokes that utilize the entire blade length, releasing pressure on the blade on the backward stroke. There is no cutting that takes place on the back stroke, so maintaining pressure only tires you out and shortens the blade life.