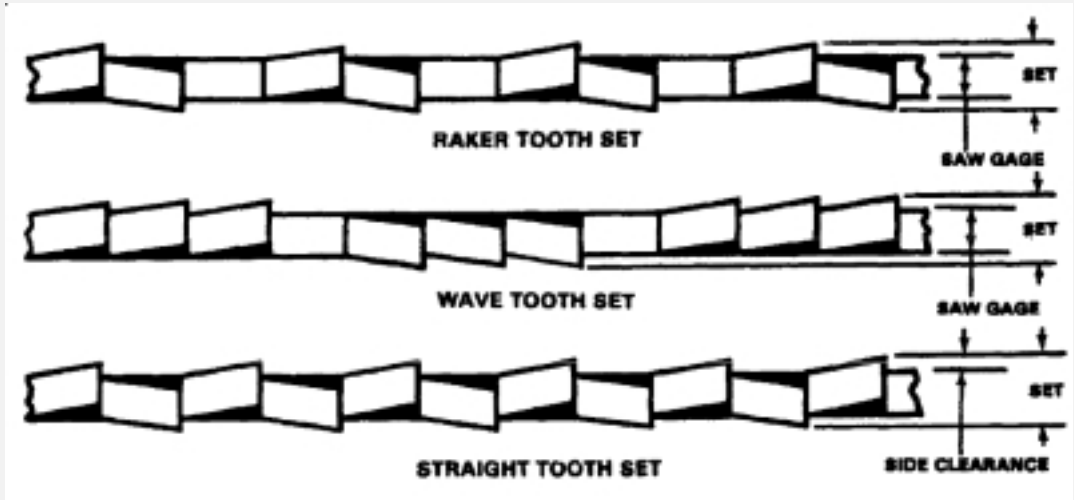
HACKSAW

Safe and Effective Use

BLADE TYPES

- Hacksaw blades are available with tooth counts ranging from 14 to 32 teeth per inch. Thin stock calls for finer teeth; thicker metal requires fewer teeth per inch.
- As a general rule of thumb, three teeth should cover the width of the material.
- The way teeth are positioned on a blade is called "set." There are three typical tooth sets:
  - **Regular:** These work well on softer metals that don't contain iron. The teeth are lined up touching each other and alternating to the left and right.
  - **Raker:** Perfect for cutting into thick metals. The teeth are placed in sets of three.
  - **Wavy:** The right choice for hard, thin metals. The teeth are set in a wave pattern from left to right for a smooth, fine cut.

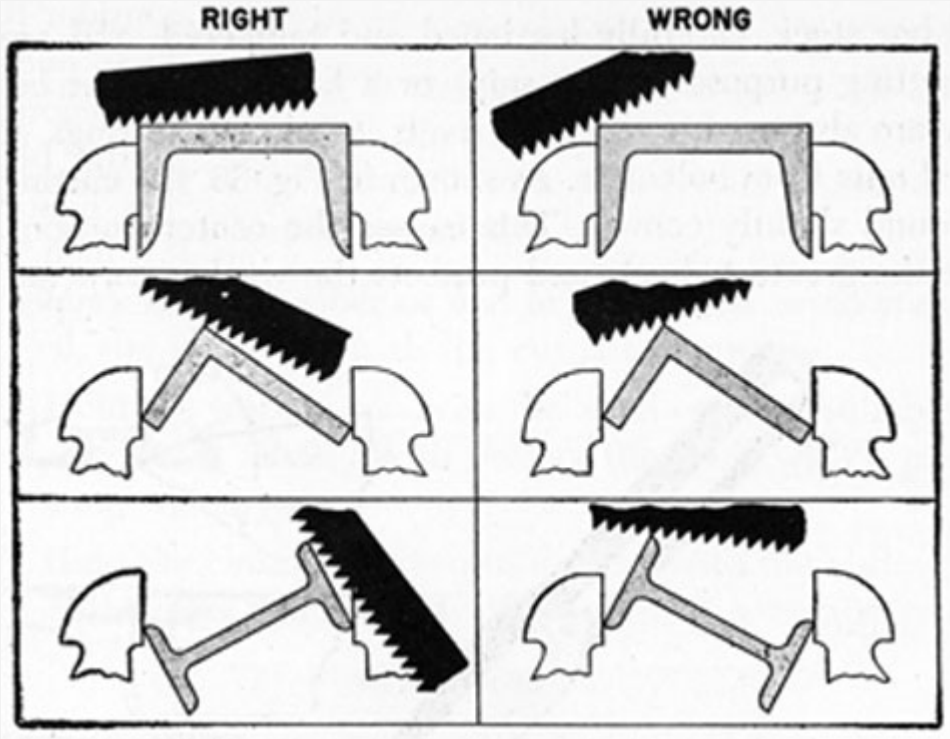


FRAME TYPES

- Hacksaw frames can be either fixed or adjustable.
- A fixed frame accepts one blade length; while the adjustable typically handles 10- and 12-inch blades, some can accept blades ranging from 8 to 16 inches.
- There's a slight price difference, but the versatility of an adjustable frame is well worth the additional cost.
- A hacksaw blade has a hole at each end that fits onto posts on the frame, and these posts can be set in four positions: up, down, left and right. Also, the blade can be mounted on the posts with the tooth side in either direction, giving you a total of eight blade positions to choose from.

USING THE HACKSAW

- Be sure the material being cut is clean
- Hold the hacksaw so that the dominant hand's index finger is pointing ahead to help guide the saw.
- Move your body forward and back as you cut, pressing on the forward stroke and easing off on the return one.
- Keep the blade rigid and the frame properly aligned.
- Cut harder materials more slowly than soft materials.
- Put a drop of oil on each side of the blade.



HACKSAW SAFETY

- Choose the correct blade for the material being cut.
- Keep the blade rigid and the frame properly aligned.
- Cut using strong, steady strokes directed away from you.
- Use the entire length of the blade in each cutting stroke.
- Keep saw blades clean, and use light machine oil on the blade to keep it from overheating and breaking.
- Cut harder materials more slowly than soft materials.
- Clamp, or secure in a vise, the material you are cutting.