

Field Cutting Metal Panels



Cutting ASC Building Products' prefinished panels on a jobsite can create severe performance issues. Improperly cut panels can create corrosion and finish deficiencies that will compromise our Material and Paint Finish Warranties if this cut edge is exposed to weather.

There are specific reasons that factory-produced panels require cutting on a jobsite. Most common roof instances include the need to miter cut a panel end at a valley or hip, at an eave that is not perpendicular to the slope, and at penetrations. Another example is panels that require lengths shorter than can be produced on precut roll forming mills.

METHODS USED TO CUT METAL PANELS:



HAND TOOLS:

- **SHEET METAL SHEARS.** A heavy-duty, long handled pair of metal cutting scissors with short blades.
- **AVIATION SNIPS.** Left hand cuts, green handles; right hand cuts, red handles; straight cuts, yellow handles.



ELECTRICAL POWER TOOLS:

- **NIBBLERS.** A hand-held oscillating punch-and-die that removes consecutive moon-shaped pieces, progressing forward to make the cut. When using this tool, it is difficult to cut in a straight line, especially up and over standing seam or trapezoidal ribs.
- **POWER SHEARS.** Electrical scissors that cut a straight strip of material out of the panel approximately 1/8" wide and curls up the strip in a pig tail-type configuration. This is a good tool to cut parallel to ribs, but difficult to cut across a panel. It is a good tool to cut the flat pan of a standing seam panel and for cutting a panel parallel to ribs.
- **CIRCULAR SAW BLADES (not recommended)** Examples of these blades are found in lumber yards, hardware stores and home improvement stores:
- **ABRASIVE METAL CUTTING BLADES.** In a circular saw this blade produces extreme noise levels, high velocity spark steams, and leaves a ragged edge similar to a serrated knife blade. A panel cut with this blade requires a scissors-type hand tool to trim back the cut edge 1/2" if the panel end is to be left exposed to weather.
- **CARBIDE-TIPPED WOOD/LAMINATE BLADE OR REVERSED COMBINATION BLADE.** This blade is often used just for convenience. It also produces extreme noise, heat, and ragged edge as above.



- **GUILLOTINE-STYLE SHEARING BLADES.** The most popular is a portable hinged device manufactured by Swenson Shear. It is commonly used to field cut corrugated or trapezoidal ribbed panels at right angles to the ribs. Swenson also manufactures a portable field table that will notch-out standing seam panel ribs, and another adjustable table (for step #2) that slits the flat up to a 45° angle.

Final cuts to steel panels should not be done with any heat-generating device. These include circular saw or reciprocating saw i.e. jigsaw or Sawzall™ by Milwaukee. Several well known power tool companies produce saws similar to Sawzall.

Lastly, it is common practice to mark a panel to be field cut with a guideline. Black lead pencils should not be used to indicate cutting lines. The carbon in the pencil will promote corrosion. Felt tip ink markers or pens similar to Sharpie® should be used for marking.