

**The best way to cut Aluminum Composite Materials**

From eye-catching signage and point of sale displays to wayfinding solutions, we are all familiar with Aluminum Composite Materials.  ACM is a popular material for use in the signage, advertising, and construction industries, but it can be challenging to cut.

With a sandwich construction of outer layers of aluminum foil around a tough polymer core, ACM needs to be cut cleanly with an accurate edge. You don’t want a rough cut with burred edges or lots of dust and debris created in the cutting process.

Here are our 8 expert tips on the best way to cut this incredibly useful material.

**8 Essential points to successful ACM cutting**

**1. Don’t cut by hand**

Cutting ACM by hand with a knife is dangerous, slow and results in a poor-quality finish and low precision. Why risk mistakes that waste costly materials or slow down your production?

With a specialist cutting machine, your safety is guaranteed, and the polymer core is cut neatly, avoiding the rough edges that result from hand snapping.

**2. Buy a cutter that cuts and finishes in one pass**

You want to achieve a clean, accurate finish. A top-quality cutter should deburr edges to remove any sharpness that would otherwise require additional finishing. The material should be safe to handle immediately.  There should be no need for extra edge finishing, so productivity is increased, and safety is guaranteed.

**3. Cut without dust**

A manual cutter with composite cutting tools creates no dust or static when cutting, so you do not need an expensive extraction system. Cutting without dust and debris is better for your health as well as the performance of expensive printing machinery that can be damaged by such particles.

**4. Increase productivity and repeatable quality**

You should choose a cutting machine that increases your productivity. This is all about the speed and ease of set-up. How easy is it to align the ACM ready for cutting?

Look for a sight-line strip that simply and accurately shows you where the cut line will be.

Consider the ease and effectiveness of the clamping mechanism. You need a firm clamp that also protects the material’s surface. The ability to lower the clamp to make final tiny adjustments to align the material before firm clamping is vital.

Are the scoring and cutting blades permanently mounted for instant use, and do they cut along the same line? In a high production environment, repeatable, accurate cutting reduces waste and increases productivity.

A pair of left and right-hand production stops and a precise squaring arm will allow you to cut boards to a specific measurement quickly. There is nothing more impressive than a stack of perfectly identical signs, so the setup and ease of alignment are essential.

**5. Cut with no off-cut bend**

You do not want to waste material. There are tight flatness tolerances for successful flat-bed printing as any curve above 2mm can cause interference problems.

To solve this problem Keencut designers created the C2 cutting head for the SteelTrak, which eliminates all post-cutting curvature on ACM.

**6. Cut with minimal effort**

You could be cutting ACM most of the day. You need a cutting machine that minimises the effort and is ergonomically designed to be comfortable to use. Look for a vertical cutting machine with a low friction bearing system to reduce user fatigue.

**7. Cut large panels**

Look for a cutter that easily tackles large boards such as 2.4m x 1.2m (8’ x 4’) panels. Cutting your own boards rather than buying in pre-cut sizes will help your workflow, ensure quality, and reduce costs.

**8. Remember versatility**

If you are buying a cutting machine, think about areas your business may expand into. What other materials can the cutter cut?  Do you have the option to v-groove ACM so that you can produce sign trays, boxes and exhibition stands? Can the machine cut and score glass or acrylics? Is it able to cut Steel Composite Panels without creating dangerous sparks?