

# Symmetrical is Good

Symmetrical metal panels can lower roofing costs

BY MIKE RUSSO / **RSI** Editor-at-Large



**S**ymmetry sounds like a nice design concept, but what does it have to do with metal roofing?

The fact is that symmetrical metal roofing panels represent real advantages to installers, architects and building owners alike, primarily in the form of lower costs.

Simply put, since symmetrical panels lower the overall cost of installing, maintaining and repairing a standing seam roof, specifiers are trending toward requiring that “individual panels shall be removable for replacement without removing adjacent panels.”

We would expect that most veteran metal roofing contractors have some familiarity with symmetrical roofing panels. However, the fact remains that *RSI* has not covered the topic in any depth over the past 20 years. So we're due for an update.

### Symmetrical roofing panels

These metal roofing products generally share the following characteristics:

- Vertical legs that are equal in both size and profile
- Typically joined by a separate seam cap
- Can be installed in either direction (there is no need to match one side of one panel with the corresponding side of another panel)

On the other hand, non-symmetrical panels work like this:

- They include interlocking male/female seams
- They do not require a separate seam cap
- They can only be installed in one direction, from one end of the roof to the other, by matching male to female seams

Symmetrical panels, which offer flexibility of how and when panels are installed, can significantly reduce labor costs, according to manufacturers. This can represent a significant savings over interlocking systems.

With non-symmetrical panels, installers must start on one end and continue laying panels in a single direction, one after the other. With symmetrical panels, installers can start from a center point on the roof and work in either, or both, directions. This capability alone can dramatically decrease labor requirements, or allow contractors to run simultaneous crews to expedite job completion.

### Handling roof penetrations

Now let's consider that there is a roof protrusion (such as a dormer, skylight, etc.) in the installation path that requires detail work before adjacent panels can be installed. A symmetrical system allows the contractor to simply move the crew around the obstacle to continue working, assured that any panels inserted later will align properly.

*(Opposite page) Stainless-steel, symmetrical seam roof on Halifax Harbor Marina in Daytona Beach glistens in the Florida sun. (Photographs courtesy of IMETCO.)*



*Symmetrical seam roof on Shoreline East Railroad Guilford Station shelters daily commuters in Guilford, Conn.*

With non-symmetrical panels, however, installation would be halted until the detail work was completed. Only then can the crew continue laying the sequential panels.

Some industry observers argue that a symmetrical panel system actually requires additional labor to install the system's separate seam cap. While the cap does present an additional component both in material and labor, the time and cost required to install caps is negligible.

And time is money. After you add up the crew's “stand-by” wages, the daily equipment mobilization costs, and potential liquidated damages as the deadline approaches, the time- and labor cost-savings of a symmetrical system can be significant.

### Saving on materials

In addition to reducing labor costs, a symmetrical system can also reduce materials costs. For example, when cutting a symmetrical panel for installation at hips and valleys, there is very little waste, due to the fact that each piece can be used for opposite sides of the detail condition. With a non-symmetrical panel, the remainder of the cut panel is waste — and waste equals additional cost.

To sum up, faster installation means reduced labor costs, and reduced waste saves on both labor and materials. And like most metal roofing systems, symmetrical designs offer all the benefits of metal roofing, including lower life-cycle costs and little, if any, maintenance. With all of these benefits and more, symmetrical panel systems are worth checking out. **RSI**

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