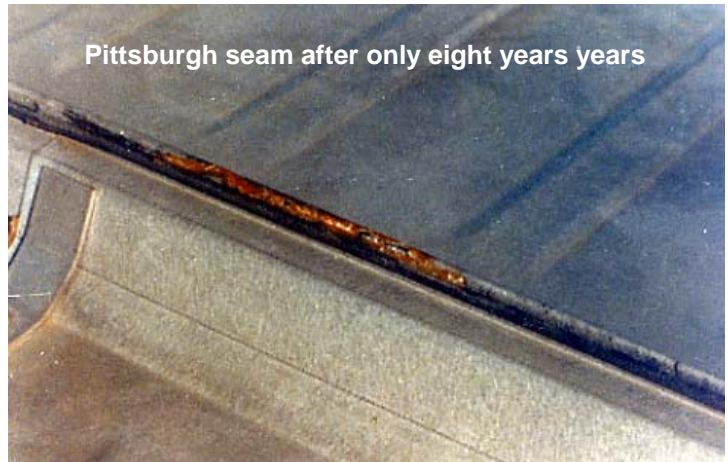


A Comparison between the Nucor CFR™ and a Pittsburgh Seam

We hear a great deal about a “Pittsburgh Double Lock Seam” with a rolled seam. Sounds great doesn’t it? For every problem you solve in this life, there are usually one or more side effects. The tooling used for a standing seam double lock seam is not proprietary; therefore it would have been very easy for Nucor to develop the “Pittsburgh Double Lock Seam” design into our CFR™ roofing system. However, when you examine the function of the seam and weigh that against the facts, it is easy to see just why we developed the Nucor CFR™ with our present seam design.

As you look at the double lock in section, the detail looks great. In reality, there are a few more items to consider. The field seamer is about 24” long. Its function is to roll two pieces of metal once, then twice... but is that all? The fact is at the clips, you are now rolling three pieces of metal once then twice. At the endlaps, there is still another variable added to the equation. Add to that normal material and roll form tolerances and you see that the double lock can be problematic to the erector and later to the owner.

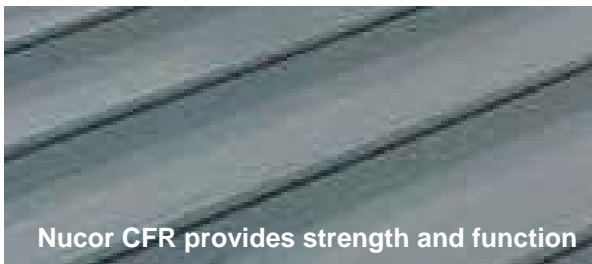
To roll the panels with the seamer, the double lock seamer has “biting” wheels that propel it. These wheels can actually cause abrasions to the Galvalume® surface. These abrasions can reduce the life of the product at the seam. As the field seamer propels itself, even more pressure is added to the biting wheels at the clip and endlap locations. There is a delicate balance in wheel settings that must seam the panels between the clips and then with the added thickness of the clips and endlaps. Look at what can happen in less than ten years after installation.



Notice how the panel has eroded at the clip location. This condition was typical for the entire project. It makes you wonder how this would perform on an uplift or water test.

The purpose of the seam is simple. It must simply be designed to make the roof watertight and to hold the roof on during high winds. It’s as simple as that.

The Nucor design takes into account these two important issues. We develop the clamping forces necessary for the roof to withstand high wind uplift and the sealing properties required to keep the building high and dry. Anything more and over bending and/or scarring of the Galvalume® finish could result. The Nucor design is the best of all worlds. It is erector friendly, it can be installed from either direction, the seamer does not scar the finish, the panel is secure from high winds, and the seam is adequately seamed for the effects of weather.



The Nucor roof can also be laid in its entirety before seaming. This makes coordination of projects much easier. The Nucor design is much more erector friendly in that the field seamer is designed to seam without damaging the protective coating on the panels. Even more important is the unique design of the seam which provides a pleasing look, in addition to securing the roof from high winds and the effects of weather.