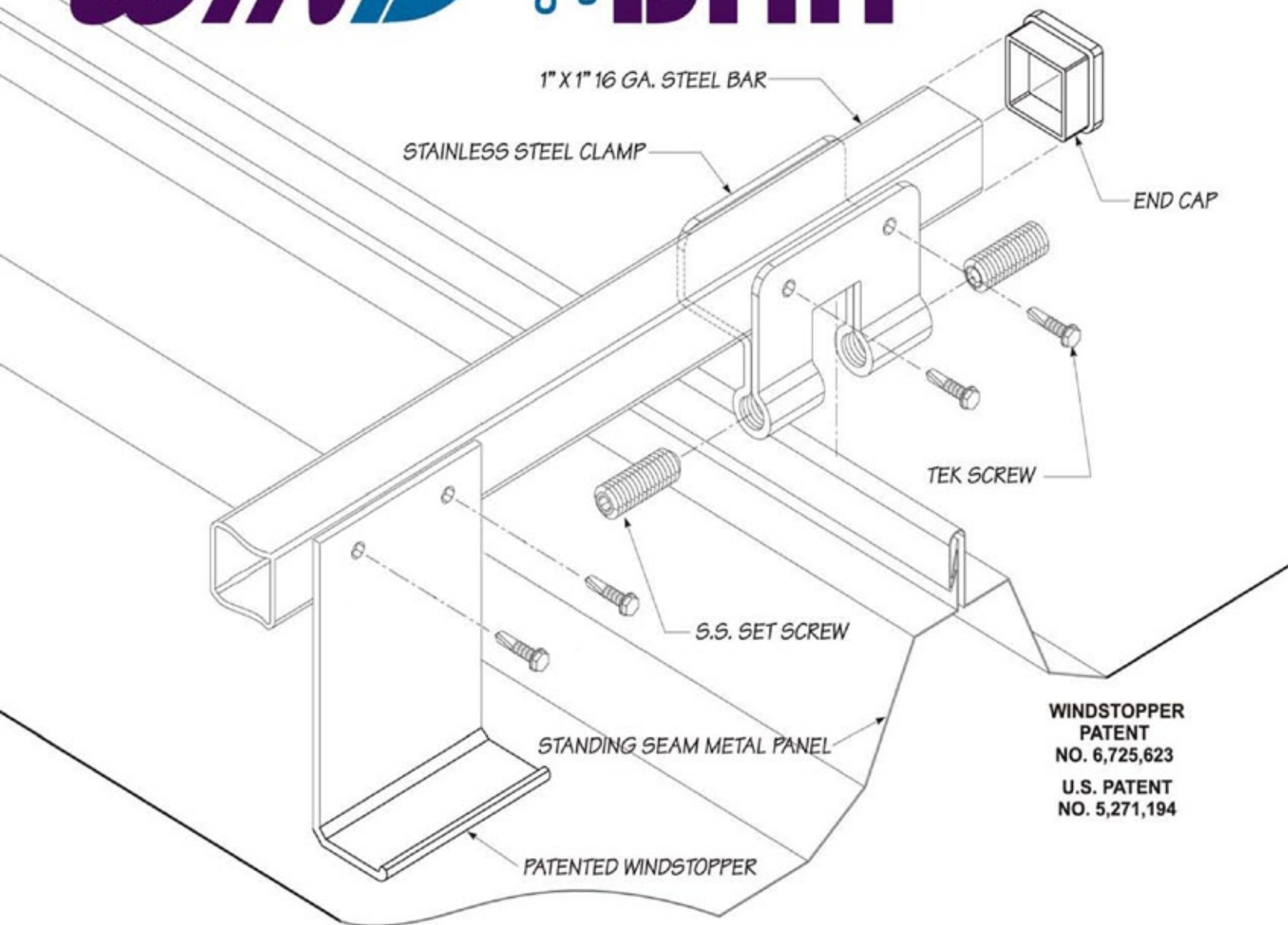


WIND BAR™



THE SOLUTION TO WIND UPLIFT PROBLEMS

WINDBAR™ - NEW PATENTED WINDSTOPPER KEEPS THE FLAT OF THE PANEL FROM UPLIFTING

WINDBAR™ - HELPS METAL ROOF PANELS MEET THE NEW INTERNATIONAL BUILDING CODE (IBC) REQUIREMENTS

WINDBAR™ - FACTORY TESTED UNDER ASTM E-1592 (call for results)

WINDBAR™ - CAN BE PAINTED IN 20 YEAR KYNAR® POWDERCOAT

WINDBAR™ - STAINLESS STEEL CLAMPS WITH NO ROOF PENETRATIONS

CALL 1-800-SNOJAX-1 (1-800-766-5291)



Hurricanes? High Winds? Wind Uplift Problems on Standing Seam Metal Roofs? Noisy Metal Roofs? NOW THERE IS A SOLUTION...

Are you in an area with hurricanes or high winds? Do you have a roof that needs a metal roof panel but cannot meet wind load requirements? (Do you have a standing seam metal roof panel that does not meet the new code requirements?) Do you have a metal building that has a noisy metal roof due to wind? If so, we have a solution for you... WINDBAR.

The new WINDBAR system acts as external purlins for your standing seam metal roof. It adds uplift strength to new and existing metal roofs. The principal behind the WINDBAR system is the patented Windstopper foot. A non-penetrating clamp is placed evenly between roof clips on the standing seams, a square bar spans between clamps, and the Windstopper is attached to the bar over the middle of the panel. The windstopper foot then holds down the middle of the panel from uplifting under negative wind pressure, which all roofs experience in any wind condition.

As seen in the ASTM E-1592 test, which simulates negative wind pressure on a roof panel system, the middle of the standing seam roof panel arches up to such a great extent that it disengages the seams, causing roof failure. We tested an industry standard 18" wide 24 gauge snap together roof panel using the ASTM E-1592 guidelines with the applied WINDBAR System, and observed incredible improvements in performance with minimal seam deformation. For example, when roof clips were placed at four foot (4') on center, with the WINDBAR system at four foot spaced between the clips, the panel performance was doubled. Without the WINDBAR system the panel failed (due to seam disengagement) at 41.6 psf. With the WINDBAR system the panel failed (due to clip fracturing) at 78 psf. Even more amazing, when we tested the same roof panel system at one foot six inches (1'-6") on center, the limits of the testing chamber were reached before panel failure occurred. Without the WINDBAR system the panels failed at 80.6 psf. With the WINDBAR system attached, we reached 250 psf which was the maximum capacity of the test chamber. Thomas M. Shingler P.E. (registered structural engineer and president of Design Dynamics Inc) of Dallas Texas observed the tests, collected and deciphered data and created the structural report.

The WINDBAR system improves the uplift performance of all standing seam metal roofs. Most areas of the country are now using the new International Building Code (which replaces the Uniform Building code or UBC). Many current standing seam systems do not meet all of the requirements for wind uplift. In several cases, it is only the edge zone of the roof that needs additional protection. In this instance, one would only use the WINDBAR system in select areas.



The WINDBAR system has been factory tested to the ASTM E-1592 on several types of panels (call for a test report), as well as field tested, having been used on a metal roof surviving a hurricane in an area where other roofs blew off.

Another possible use for the WINDBAR system is the control of a “noisy” metal roof. One customer has used WINDBAR on a metal building where the roof made so much noise that when it was windy outside people could not use the space inside. After installing WINDBAR as a test on one section of the building, the owner reported a 99% noise reduction due to the addition of the WINDBAR system. No laboratory testing has been done for noise reduction, but it has been field proven that WINDBAR may reduce metal roof noise in some cases.

On the Lincoln County Justice Center, the WINDBAR system served three purposes. First, it reduced roof noise due to wind uplift, which was their initial concern. Second, it helped strengthen the roof because the metal building was underdesigned. Finally, since the job was in Colorado, it gave them much needed snow retention.

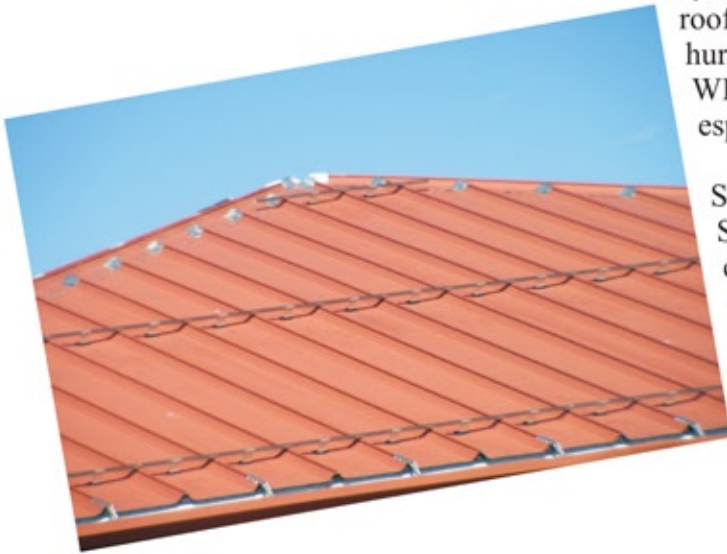


“For over 10 years, every time it was windy outside, the noise caused by our metal roof was so loud, we would have to cancel meetings. After installing the WINDBAR system, it was like night and day, the noise was significantly reduced to the point where nobody notices it now.”

**Roxana Devers,
Lincoln County Clerk**

If you have an existing building with a standing seam metal roof and wind uplift is a concern due to high winds or hurricanes, you as an owner, may want to invest in WINDBAR as added protection against roof failures, especially at the eave and edge zones of your roof.

Since the WINDBAR system is based on the proven SNOBAR snow retention system, in a large part of the country, an owner/architect can solve two problems with one solution. In this case, a designer must make sure to design not only for wind uplift, but also for snow projection, using the proper layout for both. We do offer design assistance, providing snow and wind protection layouts.



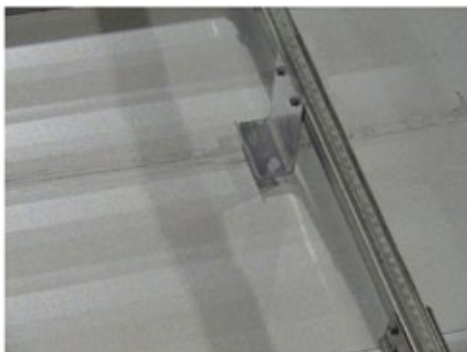
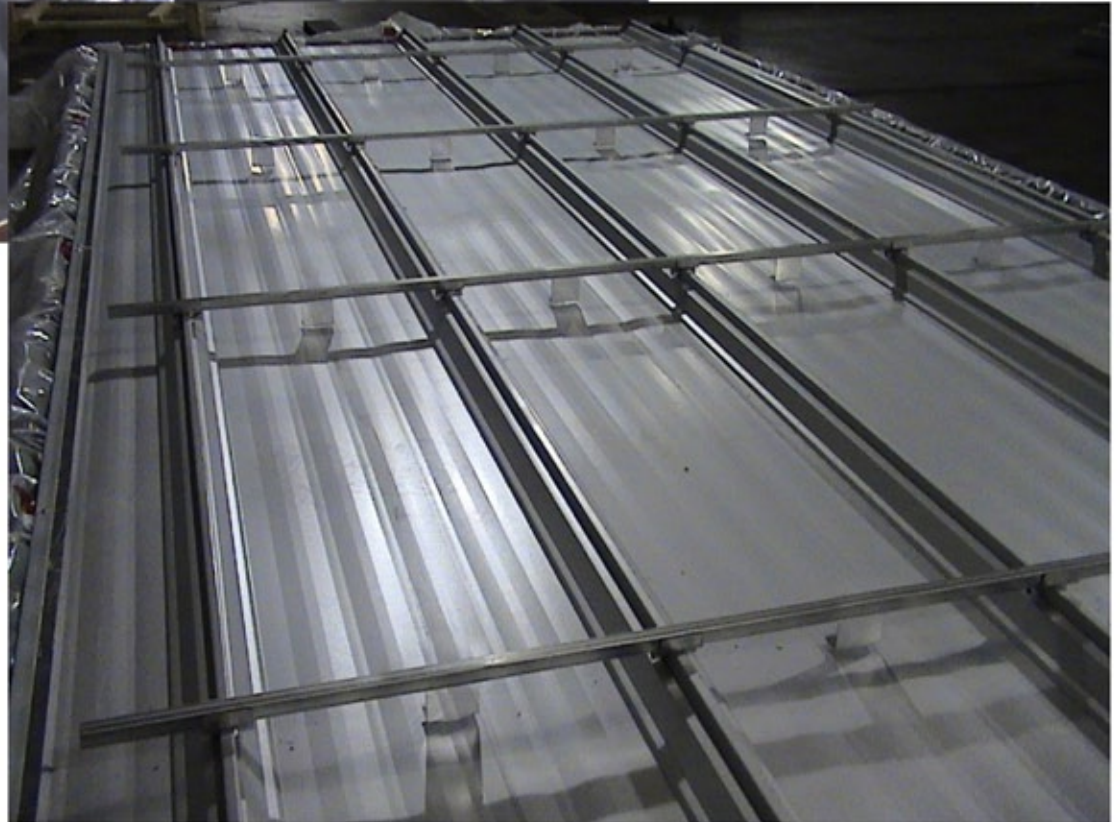
In areas where there is snow, the **WINDBAR™** also serves as a snow retention device. Please see our **SNOWBAR™** literature for additional design requirements.



WIND BAR™



This is a 24" wide trapezoidal panel after the ASTM E-1592 test was performed without using the WINDBAR. The panel failed due to seam disengagement.



When the WINDBAR with the patented Windstopper was used on the trapezoidal panel during the ASTM E-1592 test, the flat of the roof panel was not allowed to deflect. Because it did not deflect, the seam did not fail and the ultimate failure occurred when the two(2) roof clip screws pulled out from the 16 gauge purlin.