

**UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT**

RMH TECH LLC and METAL ROOF
INNOVATIONS, LTD.,
Plaintiffs,

v.

PMC INDUSTRIES, INC.,
Defendant.

No. 3:18-cv-543 (VAB)

MEMORANDUM OF DECISION AND ORDER

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RMH Tech, LLC (“RMH”) and Metal Roof Innovations, Ltd. (“MRI”) (collectively, “Plaintiffs”) have sued PMC Industries, Inc. (“PMC”), alleging patent infringement. PMC asserts one counterclaim seeking a declaratory judgment of non-infringement. canceled

Following a four-day bench trial and post-trial oral argument, the Court now sets forth its findings of fact and conclusions of law under Federal Rule of Civil Procedure 52(a)(1).

As explained below, the Court finds that PMC’s manufacture, sale, and distribution of the ColorSnap system has directly infringed U.S. Patent No. 6,470,629 (the “‘629 Patent”), and that Plaintiffs have established that they are entitled to a permanent injunction to address PMC’s ongoing infringement.

Accordingly, the Court **ORDERS** that PMC be enjoined permanently from making, using, offering for sale, or selling in the United States the ColorSnap system, replacement parts to repair previously sold ColorSnap systems, or any colorable imitations thereof, until the expiration of the ‘629 Patent.

The Court does not find, however, that this case is exceptional and does not award attorney’s fees and costs to Plaintiffs.

I. PROCEDURAL HISTORY

On July 11, 2016, Plaintiffs sued PMC in the United States District Court for the District of Colorado (“District of Colorado”), alleging that PMC is infringing on the design and novel function of the ‘629 Patent through the marketing and sale of the ColorSnap system, and seeking both monetary damages as well as an injunction. *See* Complaint, dated July 11, 2016 (“Compl.”), ECF No. 1.

On September 7, 2016, PMC answered and brought counterclaims against Plaintiffs, seeking a declaratory judgment of non-infringement and of the ‘629 Patent’s invalidity. Answer

and Counterclaim, dated Sept. 7, 2016, ECF No. 17; *see also* Amended Answer, dated Feb. 10, 2017, ECF No. 43.

On May 11, 2017, the Honorable Christine Arguello of the District of Colorado held a hearing consistent with *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), to determine the construction of the patent claims in question. Minute Entry, dated May 11, 2017, ECF No. 52.

On October 2, 2017, Judge Arguello issued an order constructing the disputed claims of the '629 Patent. Claim Construction Order, dated Oct. 2, 2017 ("Claim Const. Order"), ECF No. 66. Judge Arguello subsequently denied PMC's motion for reconsideration of the claim construction order. Order Denying Defendant's Motion for Partial Reconsideration of Order on Claim Construction, dated Jan. 8, 2018, ECF No. 74.

On December 6, 2017, PMC moved to stay the case for ninety days pending settlement discussions, a motion Plaintiffs opposed and that Judge Arguello ultimately denied. *See* Motion to Stay, dated Dec. 6, 2017, ECF No. 78; Brief in Opposition to Motion to Stay, dated Dec. 27, 2017, ECF No. 82; Order Denying Motion to Stay, dated Jan. 10, 2018, ECF No. 87.

On January 8, 2018, PMC moved to dismiss for improper venue or, in the alternative, for the case to be transferred to the District of Connecticut, on the basis that venue in a patent action, under 28 U.S.C. § 1400(b), properly lies in those jurisdictions in which the defendant resides or has a regular and established place of business. Motion to Dismiss for Improper Venue or, in the Alternative, to Transfer Venue, dated Jan. 8, 2018, ECF No. 86.

On March 30, 2018, Judge Arguello granted the motion to transfer venue. Order Granting Defendant's Motion to Transfer Venue, dated Mar. 30, 2018, ECF No. 95. That same day, the case was transferred to the District of Connecticut, *see* Docket Entry, dated Mar. 30, 2018, ECF

No. 96, and assigned to this Court on April 16, 2018. *See* Order of Transfer, dated Apr. 16, 2018, ECF No. 110.

On May 11, 2018, the parties jointly stipulated that neither party was entitled to a jury trial, as Plaintiffs had withdrawn its claim for monetary damages and sought only equitable relief, and PMC sought only declaratory relief. Joint Stipulation, dated May 11, 2018, ECF No. 129. As a result, the parties jointly stipulated to a bench trial. *Id.*

On May 14, 2018, the Court held a telephonic status conference with the parties and set a schedule for proceeding to a bench trial. Minute Entry, dated May 14, 2018, ECF No. 130. The schedule was modified on May 22, 2018. Amended Scheduling Order, dated May 22, 2018, ECF No. 135.

On May 25, 2018, PMC moved for summary judgment on several grounds. Motion for Summary Judgment, dated May 25, 2018, ECF No. 137. On July 24, 2018, the Court held oral argument on the motion. Transcript of Motion Hearing, dated July 24, 2018, ECF No. 157.

On August 6, 2018, the Court denied PMC's motion for summary judgment. Order Denying PMC Motion for Summary Judgment, dated Aug. 6, 2018 ("SJ Order"), ECF No. 158.

On September 14, 2018, the parties filed their joint trial memorandum and proposed findings of fact and conclusions of law. *See* Joint Trial Memorandum, dated Sept. 14, 2018 ("JTM"), ECF No. 162. Proposed Findings of Fact and Conclusions of Law, filed Sept. 14, 2018, ECF Nos. 164 (PMC) and 165 (Plaintiffs).

That same day, Plaintiffs also filed one motion *in limine*, seeking to sequester all fact witnesses during the trial pursuant to Federal Rule of Evidence 615. Pls.' Mot. *in Limine*, dated Sept. 14, 2018, ECF No. 163. PMC filed three motions *in limine*, seeking to exclude references to the Kovacs Patent, to preclude evidence or arguments as to the Doctrine of Equivalents, and to

preclude evidence or arguments as to the issue of willful infringement. *See* Defs.’ Mots. *in Limine*, dated Sept. 14, 2018, ECF Nos. 159, 160, & 161.

On October 5, 2018, the parties filed their responses to the motions *in limine*. *See* PMC’s Response to Pls.’ Mot. *in Limine*, dated Oct. 5, 2018, ECF No. 171; Pls.’ Oppositions to Defs.’ Mots. *in Limine*, ECF No. 169, 170, & 172.

On October 11, 2018, the Court held a final pre-trial conference with the parties. Minute Entry, dated Oct. 11, 2018, ECF No. 175; Transcript of Proceedings, filed Oct. 18, 2018, ECF No. 177.

On October 19, 2018, the Court issued a ruling and order granting Plaintiffs’ motion *in limine* and denying Defendants’ three motions *in limine*. Ruling and Order on Motions in Limine, dated Oct. 19, 2018 (“*In Limine* Order”), ECF No. 179.

From October 29, 2018 through November 1, 2019, the Court held a bench trial. During the trial, seven witnesses appeared in court to testify: Robert Haddock, Bradford Wasley, Alan Wasley, Robert Mercier, Tamas Kovacs, Damian Wasserbauer, and James Bailey. Another witness, Carroll Marston, unavailable for the trial, testified through a previously videotaped deposition. One hundred and eighty-six exhibits were admitted into evidence. *See* Transcripts of Proceedings, filed Nov. 6, 2018 (“Tr.”), ECF Nos. 190–93.

On November 30, 2018, the parties submitted revised, post-trial findings of fact and conclusions of law. *See* Post-Trial Findings of Fact and Conclusions of Law, filed Nov. 30, 2018, ECF Nos. 208 (“Pls.’ Post-Trial Brief”) and 209 (“Def.’s Post-Trial Brief”).

On December 7, 2018, the Court held a final post-trial oral argument. Minute Entry, dated Dec. 7, 2018, ECF No. 215; Transcript of Post-Trial Oral Argument, filed Dec. 17, 2018 (“Post Trial Arg. Tr.”), ECF No. 221.

II. FINDINGS OF FACT: THE PARTIES AND THE PRODUCTS

A. The Parties

RMH, a Colorado limited liability company, has its principal place of business in Colorado Springs, Colorado. JTM ¶ 5(a). It is jointly owned by Robert Haddock and his three children. Tr. 19:24–25. Mr. Haddock created RMH and assigned to it his patents, including the ‘629 Patent—the patent at issue in this case. Tr. 19:17–19.

MRI, a Colorado corporation, also has its principal place of business in Colorado Springs, Colorado. JTM ¶ 5(A)(c). Mr. Haddock created MRI in order to market his inventions. Tr. 20:16–17. He is currently MRI’s President and Chief Executive Officer, and several of his family members, including his two sons, work for MRI. Tr. 21:5–14. MRI is responsible for testing, marketing, conducting market research, and otherwise marketing his patents, including the distribution of products based on those patents. Tr. 20:17–21. Mr. Haddock owns roughly 98% of the business; the remainder is held by an equity partner in charge of all manufacturing. Tr. 20:25–21:4.

MRI also does business under the name S-5! and is primarily known under this name on the market. Tr. 21:15–22. S-5! sells a variety of metal products that make it easy to attach ancillary structures or systems to metal rooftops. Tr. 21:23–22:2. MRI is the exclusive licensee of the ‘629 Patent. JTM ¶ 5(A)(c).

PMC, a Connecticut corporation, has its principal place of business in Plainville, Connecticut. JTM ¶ 5(A)(d). Alan Wasley is the Chief Executive Officer (“CEO”) of PMC. Tr. 264:15–19.

B. Robert Haddock's Background in the Metal Roofing Industry

Mr. Haddock's father, who owned a construction company in Colorado Springs, introduced Mr. Haddock to the steel building construction industry.¹ Tr. 14:14–17. After working for his father for several of his high school years, Mr. Haddock enrolled in college, but left after the first semester. Tr. 14:15–19, 14:2–7. He then held a variety of positions, including working in a machine shop, in construction, on a ranch, and competing at professional rodeos. Tr. 14:9–11.

In 1977, Mr. Haddock founded a wholly-owned company, a subcontractor specializing in erecting pre-engineered metal buildings. Tr. 15:5–16. Over time, the business expanded into other areas, including the development of architectural metals, metal cladding² and coverings for composite wall systems, and other metal components for building construction. Tr. 15:14–16. Mr. Haddock estimates that company, which he wrapped up in 1990, worked on hundreds of metal commercial and industrial buildings on more than five hundred job sites. Tr. 16:2–21. The types of structures included distribution facilities for shipping companies such as United Parcel Service and Federal Express. Tr. 16:13–19.

In the 1980s, Mr. Haddock began independent consulting under Metal Roof Advisory Group, a new wholly-owned company, which continues to operate today. Tr. 16:24–17:18, 18:17–21. In that role, Mr. Haddock has done a significant amount of teaching, training, and technical writing for trade associations and trade publications. Tr. 17:22–24. He has also regularly been hired as an expert witness in cases involving metal building defects, specifically

¹ Mr. Haddock's full CV was admitted as Pls.' Ex. SSS.

² "Cladding" refers to the "visible non-structural external finish of a building." JAMES STEVENS CURL, OXFORD DICTIONARY OF ARCHITECTURE 177 (2015). Metal cladding is frequently used for non-structural external finishes "where the priority is to provide protection from the elements as well as a striking external finish." *An Architect's Guide to: Metal Cladding*, ARCHITZER J. (accessed Dec. 5, 2018), <https://architizer.com/blog/product-guides/product-guide/eantka-metal-cladding/>.

roofing construction defects. Tr. 17:25–18:5. By his estimation, his consulting practice has resulted in work on several hundred roofs. Tr. 18:22–19:10.

Mr. Haddock’s knowledge of the engineering, technical, and scientific challenges involved with metal roofing and construction were primarily gained through work experience and interactions with other industry professionals. Tr. 54:20–55:16. He has received multiple awards and recognitions within the metal construction roofing industry. Tr. 55:17–57:2; Pls.’ Ex. SSS.

C. Robert Haddock’s Inventions

During Mr. Haddock’s time in the metal roofing industry, he encountered many products that were available on the market for mounting snow guards and snow retention systems on metal roofs. Tr. 22:20–23:2, 57:23–58:16. Such systems are frequently mounted on pitched metal roofs by contractors like Mr. Haddock because these roofs are particularly prone to a phenomenon called “rooftop avalanche.” Tr. 23:3–5. Pitched metal roofs with snow piled on them are very likely to suddenly experience melts that cause significant amounts of snow to fall off the roofs and onto people in the immediate vicinity of the building. Tr. 52:6–54:8, 66:25–5; Pls.’ Ex. Z. The image below depicts the phenomenon:



Pls.’ Ex. Z at 4, fig. 5.

As a result, buildings with metal roofs will often be outfitted with snow retention systems. These systems are designed to hold the snow in place on the roof so that even if the snow melts, large amounts of snow will not come down at once. Tr. 52:6–54:8.

There are two major types of snow retention systems currently in use on metal roofs. Tr. 51:21–52:5. “Fence” type snow retention systems use a series of continuous horizontal components, assembled laterally along either the eaves of the roof or in parallel rows up the slope of the roof in the style of a fence, to resist the sliding force, as seen below:



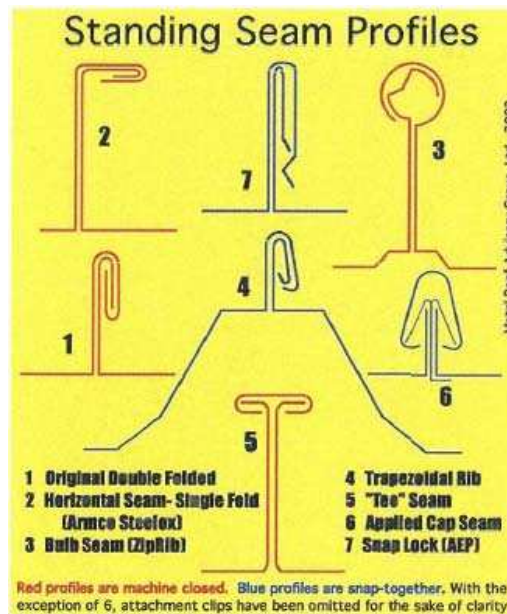
Pls.’ Ex. Z at 8, fig. 8A. “Cleat” type snow retention systems consist of small individual units used as “cleats” spot located at or near the eaves of the roof, as seen below:



Pls.’ Ex. Z at 8, fig. 8B. Both systems restrain or slow the movement of a bank of snow by restraining its base. *Id.* at 9.

In Mr. Haddock’s experience, however, many of the snow retention systems on the market were not particularly well-adapted to metal roofs, Tr. 22:22–23:2, specifically standing seam metal roofs. Tr. 58:3–11.

There are many different types of metal roofs currently manufactured with a variety of “seam profiles”—that is, differences in how metal roof panels are connected at their seams. Tr. 35:2–10. The following image highlights several different standing seam profiles currently in use:



Pls.’ Ex. Y at 37.

“Standing seam” profiles allow the roof’s metal panels to move appropriately in response to temperature changes that cause expansion and contraction of roofing materials. Tr. 38:20–41:1. This is important because a metal roof’s panels, while attached to the underlying structure, are attached to each other with metal clips or fasteners. Tr. 37:5–38:23; 42:1–43:1. If the panels are not able to move independently, as standing seam metal roofs permit, the movement caused by thermal expansion and contraction can wear down those clips, damaging the integrity of the roofs. Tr. 39:20–40:1.

Mr. Haddock determined that the snow guards on the marketplace in the mid-1980s were either attached with penetrating methods—i.e., screw-fastened or bolted through the roof itself—or glued to the roof. Tr. 58:3–16. The former could jeopardize the weatherproofing of the roof; the latter would simply have a very limited lifespan before falling off. *Id.*

Mr. Haddock sought a more permanent solution when he built his own home. Tr. 58:18–20. This led to the invention of his own snow retention system. *Id.* Mr. Haddock created metal clamps that sit over the metal roof seam “like a saddle would sit on a horse,” and which are then tightened onto the seam with screws without penetrating or damaging the underlying roofing material. Tr. 59:4–60:7. This basic technology allowed for a very strong connection to be made between the roof and whatever was being mounted on it. Tr. 60:5–7.

Mr. Haddock faced resistance from the roofing industry when he initially introduced his mounting clamps, as there was significant concern that mounting anything to a roof would ultimately damage it. Tr. 60:10–61:14. Over time, however, Mr. Haddock’s innovations were recognized and adopted into wider use, in part due to his commitment to conducting extensive load testing to demonstrate the holding strength of his clamps. Tr. 61:15–62:4. Mr. Haddock conducted more than 3,000 load tests on a combination of different materials and seam profiles, as the holding strength of the clamps varies based on the shape of the profile and the type of metal used. Tr. 62:5–63:2. The data from this load testing was ultimately compiled into a load test chart that Mr. Haddock used in making the case for his products to others in the roofing industry.³ Tr. 63:3–14.

³ The load test chart is not in evidence, but Mr. Haddock testified that it is publicly available on the S-5! website. Tr. 63:3–10.

The mounting clamps' uses are not limited to snow-retention systems. Tr. 23:14–24:3.

They can be used to attach a variety of devices to standing seam roofs, including satellite dishes, HVAC systems, and solar panels, as seen in these images:

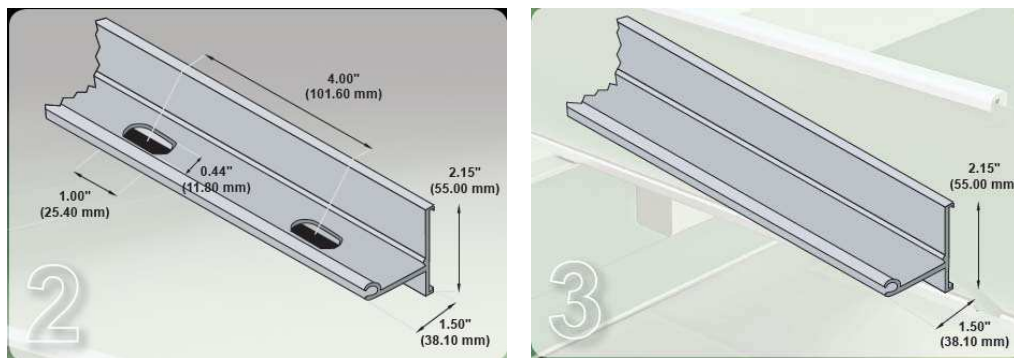


Pls.' Ex. Y at 52, 51.

Once he had developed the mounting clamp, Mr. Haddock began to develop a snow retention system that used the clamps to mount rails, or cross-members, onto standing seam metal roofs. Tr. 63:15–64:12. His first system, SnoFence, is still on the market. Tr. 66:8–11. He eventually developed, however, a new system: ColorGard. Tr. 66:12–19.

One of ColorGard's innovations—the one that gave it its name—was that it created an easy way to match the snow retention system to the color of the roof. Tr. 69:9–70:24. Over the years, customers had used a variety of methods to paint their snow guards to match their roofs, but those methods did not last as long as the color of the roof itself; roofing materials are typically warrantied for color for several decades. Tr. 69:12–17, 70:11–21. The ColorGard system features a channel—similar to an office door's nameplate—into which a roof installer could insert a strip of the actual roof material, creating a perfect match that would last for the life of the roof because it was the same exact material. Tr. 69:21–70:8.

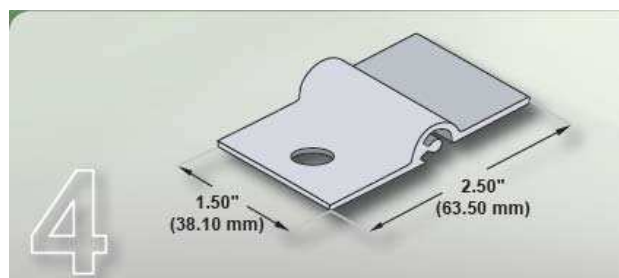
The first-generation ColorGard system was patented under a patent that expired in 2012. See Tr. 66:18–25. Mr. Haddock realized, however, that a specific feature of the ColorGard—the fact that the cross-members contained pre-punched holes—was preventing wider adoption of the system for roofs whose seams were spaced in non-standard ways, and thus needed more flexibility in determining where clamps would be installed. Tr. 68:15–69:8. This led to the development of the design for the second-generation ColorGard system in the late 1990s. Tr. 70:25–71:13. That system, while very similar to the original system, utilizes an unpunched cross-member. The images below illustrate the differences between the two types of cross-members:



(Image at left: first-generation pre-punched cross-member; at right: second-generation unpunched cross-member.)

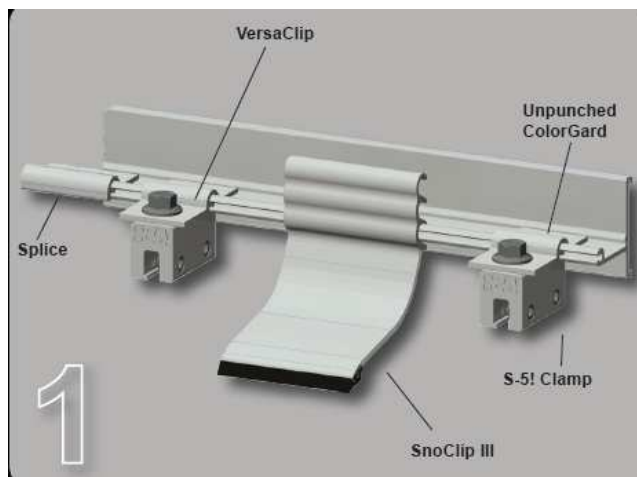
Ex. BB at 1.

Mr. Haddock also developed an adaptor clip, which he called the VersaClip, which slides onto the unpunched cross-member and is then connected to the mounting clamps. Tr. 71:4–19. This product allows the installer to position the adapter anywhere along the unpunched cross member and then bolt it to a mounting clamp. *Id.* The image below depicts the VersaClip:



Ex. BB at 1.

The diagram below indicates how the components that make up the ColorGard system fit together:



Ex. BB at 1. A physical mock-up of the ColorGard system in the image above (though without the SnoClip) was admitted as Pls.’ Ex. GGGG. The following images of the exhibit reflect top and side views of ColorGard mock-ups:



Pls.’ Ex. GGGG (as seen on slip sheet).

Mr. Haddock’s system was more easily used on a variety of standing seam metal roofs, regardless of the spacing between the seams on those roofs. It also became much easier for installers to set up the system.

D. The ‘629 Patent

On May 17, 1999, Mr. Haddock applied for a patent entitled “Mounting System and Adaptor Clip,” on May 17, 1999. Pls.’ Ex. A at 1. The patent listed him as the sole inventor. *Id.*

On October 29, 2002, the USPTO issued U.S. Patent No. 6,470,629 (the “‘629 Patent”) to Mr. Haddock. *Id.* Its priority date is May 17, 1999. JTM ¶ 5(A)(h). It is set to expire on May 17, 2019. JTM ¶ 5(A)(i).

While the ‘629 Patent’s primary commercial embodiment is the second-generation ColorGard, its claims are not limited to that embodiment. The ‘629 Patent lists a total of thirty-five claims, including six independent claims and twenty-nine dependent claims. Pls.’ Ex. A at 8–11; JTM ¶ 5(A)(k). Claims 1, 11, 14, 15, 21, and 35 are all independent claims. Pls.’ Ex. A at 8–11. The abstract of the patent summarizes the Mounting System and Adaptor Clip as:

An apparatus for securing members to a surface. The apparatus includes a mounting clamp, a mounting adaptor, a panel support member and a fastener. The panel support member and the mounting adaptor are slidably interconnected to one another. The mounting adaptor is fixedly interconnected to the mounting clamps using the fastener. The mounting adaptor may also include an area of reduced strength to permit the controlled failure of the apparatus in response to excess loading. The panel support member may be adapted to receive a panel. When installed on a surface, the apparatus obscures the view of mounting devices or equipment that may also be secured to the surface.

Pls.’ Ex. A at 1.

E. PMC

Alan Walsey, the CEO of PMC, testified that PMC is one of two companies whose roots go back three generations in the Wasley family, to a company named Wasley Products.

Tr. 269:13–271:6. Today, Mr. Wasley is CEO of two companies: Innovative Metal Products (“IMP”) and PMC Industries, Inc. (“PMC”). Tr. 264:15–19.

IMP distributes patient positioning products for the orthopedic community. Tr. 264:21–23. These products are primarily used in hospital operating rooms. Tr. 264:23–265:21, 272:16–273:9.

PMC has three business units. Tr. 266:1. One manufactures IMP's products. Tr. 266:1–2. Another manufactures bearing seals for automotive and aerospace companies. Tr. 266:4–7. The third division—and the one relevant to this action—produces clamps and roofing accessories. Tr. 266:2–4.

IMP began in the mid-1980s, after Mr. Wasley's company produced a product for his childhood friend, James Bailey, who had asked him for help creating a product to stabilize a patient during orthopedic care. Tr. 271:14–273:5. Mr. Wasley and Mr. Bailey realized that there was a need for such products and decided to enter business together. Tr. 272:16–273:9. Today, IMP holds roughly twenty-five patents for patient positioning devices. Tr. 274:11–15. Many of these involve metal clamps that attach the devices to an operating room table. Tr. 274:18–275:11.

PMC was also launched in the mid-1980s, but was originally known as Precision Molding Company. Tr. 266:8–14. At that time, the company's primary business involved plastic injection molding, developed as the need for engineered plastics supplanted the need for the rubber products previously produced by Wasley Products. Tr. 266:18–267:2. Among the plastic molded components PMC manufactured was a plastic snow guard for roofing. Tr. 267:2–3. For roughly the past decade, PMC has been manufacturing clamps designed to secure components to roofs, such as solar panels and snow retention systems. Tr. 267:8–19.

PMC also employs Mr. Wasley's son, Brad Wasley. Brad Wasley is currently a sales manager for PMC and has been employed with the company for over twenty years. Tr. 280:6–13. Brad Wasley's duties include attending trade shows for PMC. Tr. 280:15–22.

F. Interactions Between Brad Wasley and Robert Haddock

Brad Wasley and Robert Haddock first met at trade shows in the early 2000s. Tr. 89:20–90:24. At a MetalCon trade show in 2002, Mr. Haddock saw Brad Wasley at a vendor booth displaying a plastic glue snow guard that he recognized as one developed by a company called Zaleski, but without the company’s label. Tr. 89:22–90:6. Mr. Haddock then talked to Brad Wasley about the origin of that snow guard. Tr. 90:6–8.

The following year, at the MetalCon trade show, they met again. Brad Wasley displayed again the part from the year before, as well as a mechanically attached part on a seam that seemed, to Mr. Haddock, very similar to S-5!’s technology. Tr. 90:12–20. Mr. Haddock informed Brad Wasley that it appeared the part infringed on several of Mr. Haddock’s patents, but that he would be willing to discuss licensing terms. Tr. 90:21–91:8. Brad Wasley, who claimed it was a prototype, never followed up to discuss licensing terms. Mr. Haddock never saw the product appear on the market; so, he did not pursue any legal action. Tr. 91:9–92:14.

A few years later, Mr. Haddock saw advertisements for a product sold by PMC called the ML clamp and marketed as AceClamp. Tr. 92:17–24. The ML clamp was similar to the clamp Mr. Haddock developed, but also featured an innovation; it locked onto a roof seam through the tightening of a screw that pulled the parts together. Tr. 93:16–94:8. At the time, Mr. Haddock sought advice from legal counsel as to whether the ML clamp infringed on his patents. Tr. 94:9–13. While he concluded that the ML clamp likely infringed his patent, he decided not to take legal action against it at that time. Tr. 94:9–23.

At some point, Mr. Haddock also learned that another company, Unirac, had posted a copy of Mr. Haddock’s load test table—for which Mr. Haddock had received a copyright—on its

website. Tr. 95:4–95:17. When Mr. Haddock confronted Unirac about its publication of the table, he learned that Unirac had obtained the table from Brad Wasley. Tr. 96:16–25.

G. PMC’s Development of ColorSnap

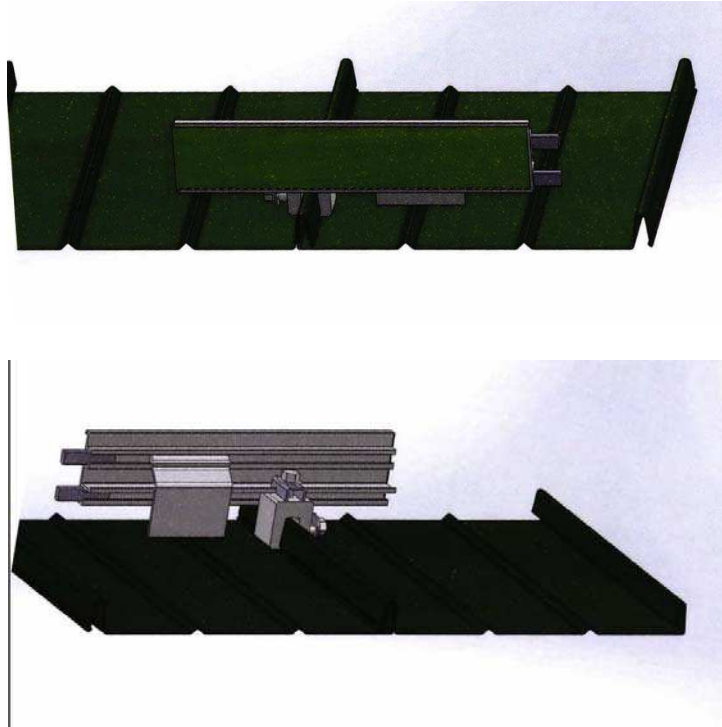
In May 2015, PMC executives had a visit with a customer who was an architect, and who wanted to install a new snow retention system on his roof. Tr. 842:20–23. The customer allegedly was looking for a snow retention system that would match the color of his roof and apparently urged them to develop such a system. Tr. 842:24–843:7; 416:10–417:5.

This meeting launched PMC into rapid product development. Tr. 843:20–844:1. PMC’s efforts ultimately yielded the accused device, ColorSnap. Tr. 844:2–4.

The development of the product was initially assigned to PMC consultant Robert Mercier, who developed several prototypes. Def.’s Exs. 15–19; Tr. 417:22–423:15.

After Mercier’s design was rejected, however, Tomas Kovacs, an engineer who worked for PMC and IMP, took up the task. Tr. 424:7–425:3. Mr. Kovacs testified that he did not look at the designs of competitor products, such as ColorGard, while he was developing the design of ColorSnap. Tr. 549:14–550:8. Mr. Kovacs, however, admitted that he was aware that all competitor products, including S-5!, slid the cross-member from the side into the clamp, which he viewed as inefficient. Tr. 550:9–17. He claimed that, in designing ColorSnap, his goal was to come up with a product where the rail could be inserted directly into the clamps and snap into place. Tr. 550:17–551:6, 552:11–24.

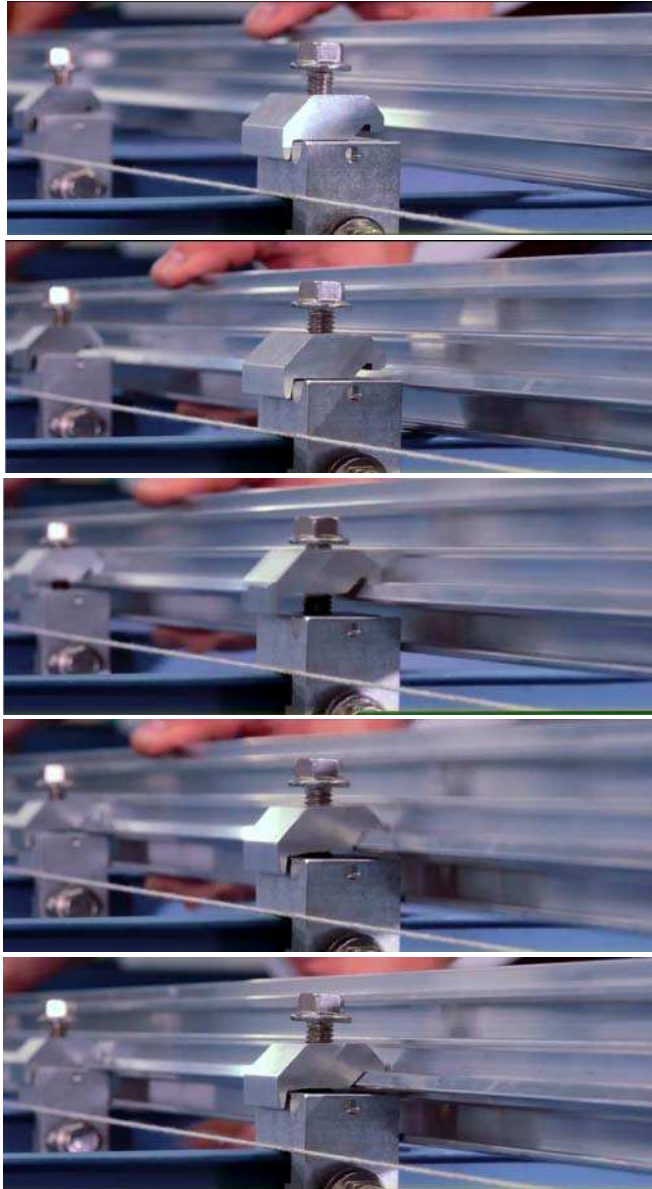
On June 18, 2015, Mr. Kovacs sent an e-mail to the project team—including Brad Wasley, Robert Mercier, and PMC consultant Carroll Marston—with the notable subject line “Ideas of colorguard system.” Pls.’ Ex. QQ at 1. Attached to the email were the following design renderings:



Pls.’ Ex. QQ at 2–3.

Over the following months, the design changed several times, but generally remained the same—except that the component PMC called the “top block” was changed from a bracket to a solid piece, and the metal used was changed from stainless steel to aluminum. Tr. 553:12–558:17; 568:18–569:11.

With the PMC snow retention system, the top block and mounting clamps are shipped together, pre-assembled. Tr. 439:19–20; 440:3–441:2. These pieces can then be taken out of the box and quickly attached to the roof seams. Tr. 440:3–7, 440:22–441:2. The horizontal rail can then be “snapped” into all the clamps at once. Tr. 441:23–442:10. These features are intended to save an installer time. Tr. 300:16–21. The following images captured from a PMC promotional video demonstrate this “snapping” installation:



Def.'s Ex. 39 at 01:55–57.

On July 15, 2015, Jim Bailey, Alan Wasley, Tamas Kovacs, and Andy Brady met with PMC's patent attorney, Damian Wasserbauer, to discuss ColorSnap and other PMC products in-development. Tr. 610:4–611:10. The team directed Mr. Wasserbauer to conduct an analysis as to whether the ColorSnap infringed on any existing patents. Tr. 611:15–24. They specifically directed him to research any of Mr. Haddock's patents, and to research patents related to ColorGard. Tr. 614:8–615:20. On August 11, 2015, after reviewing his initial search results, the

team directed him to investigate the '629 Patent further, and to prepare a freedom to operate opinion. Tr. 617:7–21.

On September 13, 2015, Mr. Wasserbauer sent PMC a “preliminary opinion” that ColorSnap did not infringe the '629 Patent:

We wanted to give you the clearance you sought...in view of the clearance searches and the upcoming trade show on Tuesday, 9/15/2015. We are providing this preliminary opinion by email as these formal letters will be provided this week . . . We performed the clearance search on the Wire management now called A2 SnowBreak “Color Snap”. We reviewed the results and found no prior art that disclosed the design. However, we did find that the Haddock USP 6,470,629 was the closest reference and required a claim chart. See Attached. We are of the opinion that the Color Snap product is clear primarily due (1) to use of the bracket [i.e., mounting adaptor, which PMC calls a top block] without the third portion element as required by the Haddock claims and (2) any equivalence in the purpose and structure to the second portion thereto. The claim chart illustrates these differences and we have ordered the file history of this patent that may provide other prosecution history estoppel arguments in addition to the PMC product not infringing under a literal element-by-element analysis or by equivalents. We are preparing and will file a provisional patent application on 9/14/2015 with the inventor.

Def.’s Ex. 44 at 1. As Mr. Wasserbauer’s preliminary opinion made clear, he prepared it under significant time pressure from PMC to clear the product ahead of a trade show on September 15, 2015. Tr. 618:19–619:4. He wrote that e-mail, moreover, without having even reviewed the patent prosecution history. Tr. 623:15–25. Mr. Wasserbauer did not subsequently provide PMC with an updated written opinion based on reviewing that history several weeks later, nor did he prepare a formal opinion letter as promised in his September 15, 2015 email.⁴ Tr. 331:17–332:2, 332:23–333:4, 721:9–722:20, 810:8–18.

⁴ In his testimony, Mr. Wasserbauer claimed that he had been preparing such a letter but had not sent it to PMC until it was needed after this lawsuit was filed. He therefore claims that his letter dated July 14, 2016 was the formal opinion letter, a work-in-progress that he continued to develop but never bothered to send to the client, and that he

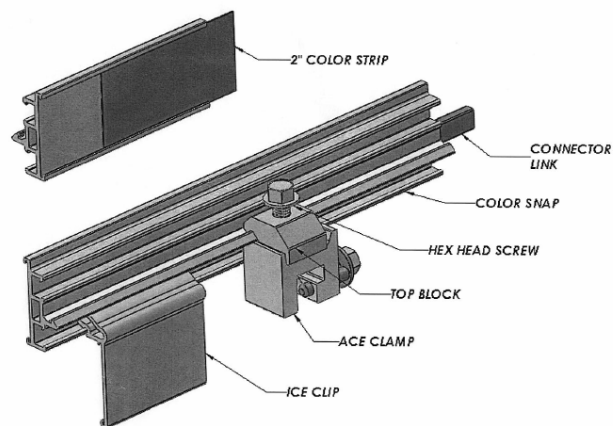
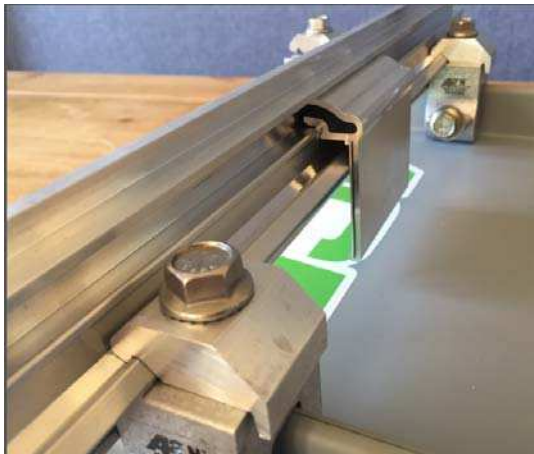
(Continued . . .)

In October 2015, Mr. Kovacs and Carol Marston from PMC took a prototype of the ColorSnap system to the MetalCon conference. Tr. 568:14–17. Mr. Marston reported to Mr. Bailey that it received an enthusiastic response from conference attendees:

ColorSnap is going to be a huge success! Everyone who has used the ColorGard has fallen over themselves with compliments about it. Tamas has done a great job in demonstrating how easy it is to assemble. The guys from ATAS were impressed and are looking for pricing. Lars stopped by and was shocked when he saw how easy it was to assemble. He feels that he is committed to S5 on the Colorgard but had no real answer when I asked if a customer called him and asked specifically for ColorSnap, would he sell it or turn it over to us and lose the sale ... got no answer. Interesting comment from Lars that S-5 has dropped their ColorGard pricing by 3 0%. I asked him to have Clay update the quote that he gave to me which helped us to find the competitive pricing.

Pls.’ Ex. XX at 1.

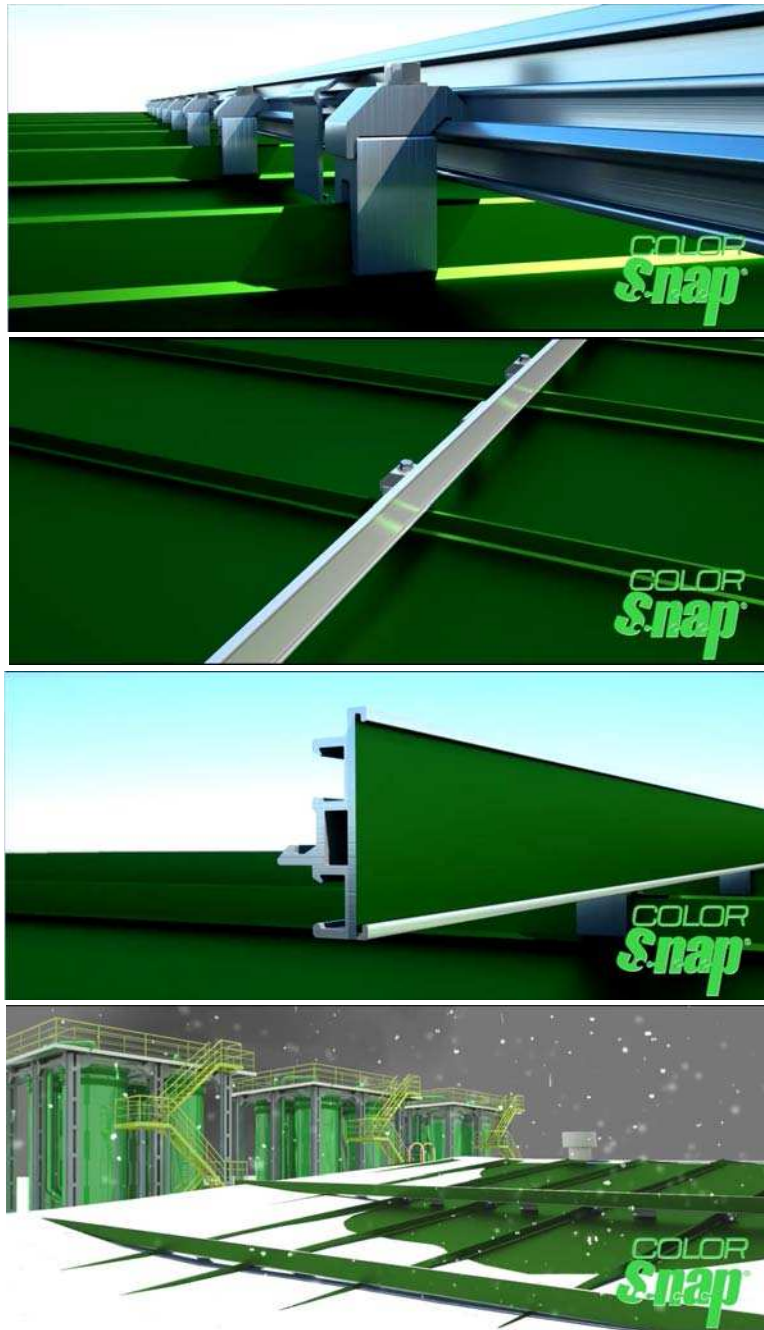
PMC approved the final design for ColorSnap in December 2015. Pls.’ Ex. DDD; Tr. 569:12–15. Since that time, the basic design for the top block, the cross member, and the clamp used has not changed. The following images reflect the final design for ColorSnap, and the product currently on the market:



simply “took that letter that was incomplete and in progress” and “just added to it and sent it off” once it was needed in this litigation. Tr. 722:12–20. This testimony, however, does not change the fact that Mr. Wasserbauer never sent PMC a formal opinion letter before this litigation.

Def.'s Ex. 22; Pls.' Ex. VV. A physical mock-up of the ColorSnap system, similar to the one depicted above, was admitted as Pls.' Ex. HHHH.

The following images, captured from a ColorSnap promotional video admitted into evidence as Def.'s Ex. 39, demonstrate what the system would look like mounted on a roof:



Def.'s Ex. 39 at 00:31, 00:37, 00:35, and 00:20.

Today, PMC makes, offers for sale and sells the component mounting clamps and snow retention systems comprising the accused device, the ColorSnap system, within the United States. JTM ¶ 5(A)(q). At least three clamps can be used with the ColorSnap system, including PMC's A2 AceClamp, ML AceClamp and A2N AceClamp. JTM ¶ 5(A)(v).

III. FINDINGS OF FACT: THE ISSUE OF INFRINGEMENT

To find infringement, the Court must find that Plaintiffs have proven by a preponderance of the evidence that every element of Claims 15 and 16 are found in the ColorSnap system, either literally or by a substantial equivalent. *See Southwall Techs. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed. Cir. 1995) (“Infringement, both literal and under the doctrine of equivalents, is an issue of fact.”) (citing *SSIH Equip. S.A. v. U.S. Int’l Trade Comm’n*, 718 F.2d 365, 376 (Fed. Cir. 1983)); *SmithKline Diagnostics v. Helena Las Corp.*, 859 F.2d 878, 889 (Fed. Cir. 1988) (“Second, the trier of fact must determine whether the claims, as properly interpreted, cover the accused device or process. The second step involves a question of fact. The burden is on SKD, as the patent owner, to prove infringement by a preponderance of the evidence. Such proof must show that every limitation of the patent claims asserted to be infringed is found in the accused device, either literally or by an equivalent.”) (citations omitted).

The disputed terms and phrases from the asserted claims were defined in Judge Arguello’s Claim Construction Order. *See* Claim Const. Order. These definitions were previously adopted by this Court, *see* SJ Order at 26, have been acknowledged as controlling of the Court’s infringement determination by the parties, *see* JTM ¶ 5(B)(c)–(d), and are incorporated into the Court’s analysis below.

A. Claim 15

Claim 15 is an independent claim of the ‘629 Patent, and reads as follows:

15. A mounting system that comprises:
first and second mounting clamps;
first and second mounting adaptors, wherein each of said first and second mounting adaptors comprises first and second mounting adaptor portions, wherein said first mounting adaptor portion of said first mounting adaptor is disposed on said first mounting clamp, and wherein said first mounting adaptor portion of said second mounting adaptor is disposed on said second mounting clamp;
first and second fasteners that anchor said first adaptor portion of said first and second mounting adaptors, respectively, to said first and second mounting clamps, respectively;
a cross member; and
first and second means for detachably interconnecting said cross member with said second adaptor portion of said first and second mounting adaptors, respectively.

Ex. A at 9. Claim 15 therefore has five limitations that must be found in the ColorSnap device to prove infringement.

1. First and Second Mounting Clamps

The term “mounting clamp” was not given any particular construction in the Claim Construction Order, as the patent language simply referred to “suitable” mounting clamps. *See* Claim Const. Order at 7–9.

Defendants have conceded that the ColorSnap system is designed to function with at least three types of mounting clamps PMC produces: the A2, A2N, and ML clamps. JTM ¶ 5(A)(v). The A2N and ML clamps are depicted in the images below:



Pls.’ Exs. IIII, JJJJ (images from slip sheets).

The Court therefore finds that this limitation is present in the ColorSnap system.

2. First and Second Mounting Adaptors

The second limitation requires “mounting adaptors” comprised of “first and second mounting adaptor portions, wherein said first mounting adaptor portion of said first mounting adaptor is disposed on said first mounting clamp, and wherein said first mounting adaptor portion of said second mounting adaptor is disposed on said second mounting clamp.”

The Claim Construction Order defined “mounting adaptors” as “generally rectangular shaped bodies having first and second areas and that interfaces with the mounting clamp, and a cross member respectively.” Claim Const. Order at 8–10. It also defined “first and second mounting adaptor portions” as “[t]he mounting adaptors each have a first distinct area separated from a second distinct area of the body.” *Id.* at 10–11.

Proving that this second limitation is present in the ColorSnap system requires that the Court find four further elements: (1) that the system utilizes two generally shaped rectangular bodies; (2) that each generally rectangular shaped body has a first distinct area separated from a second distinct area of that body; (3) that the first distinct area of each body interfaces with the mounting clamp; and (4) that the second distinct area of each body interfaces with the cross member.

ColorSnap’s “top blocks” are the components alleged to be mounting adaptors that meet the requirements of the second limitation of Claim 15.

a. Generally Rectangular Shaped Bodies

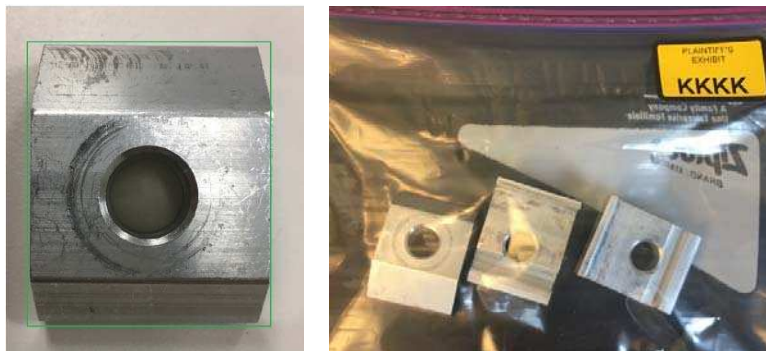
The Claim Construction Order adopted the phrase “generally rectangular” because “the Patent only discloses a rectangularly shaped mounting adaptor and, given the function of the adaptor (i.e. to interface with the cross member), a shape other than generally rectangular would not work for its intended purpose.” Claim Const. Order at 9.

At trial, PMC argued that the phrase “generally rectangular” requires the Court to find that the top block is rectangular in all views. But if Judge Arguello had intended such a narrow definition, then the Claim Construction Order would have required that the adaptor be “rectangular in all views,” or that it needed to be a “rectangular prism.” Instead, she used the phrase “generally rectangular”—and the Court therefore must determine whether the top block is “generally rectangular,” not “rectangular in all views.” PMC’s definition also fails because the preferred embodiment of the mounting adapter in this claim limitation, the VersaClip, is not rectangular in all views, as seen when viewed from the cross-sectional perspective below:



Pls.’ Ex. FFFFFF (image from slip sheet); *see also* Tr. 216:5–16.

A mounting adapter that appears rectangular in at least one view thus is “generally” rectangular. The top block, meanwhile, is rectangular in the top view and bottom view, as depicted in the images below:

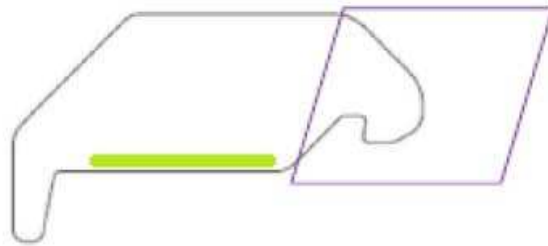


Pls.’ Exs. WWWW, KKKK (image of physical exhibit from slip sheet). The top block therefore is a generally rectangular shaped body.

b. Two Distinct Areas/Mounting Adaptor Portions

There are two distinct areas, or portions, of the mounting adaptor, if it is possible to distinguish one section of the mounting adaptor as being sufficiently different from the other. *See* Claim Const. Order at 10; Tr. 188:7–13, 193:8–22.

The image of the top block below, as marked by Mr. Haddock, indicates the two areas of the top block. The green marking represents the first area. The purple parallelogram is drawn around the second area.



Pls.’ Ex. YYYY; Tr. 130:6–16. The areas are distinct both visually and functionally. The top block therefore has two mounting adaptor portions.

c. First Mounting Adaptor Portion Interfaces with the Mounting Clamp

The first mounting adapter portion in the top block interfaces with the mounting clamp because it sits on top of it and touches it.

There was some contention during trial about the meaning of “interface” in this context, and several dictionary definitions were introduced into evidence. The Court finds that, from all the definitions offered, one best captures the ordinary meaning of interface in its noun form: “a surface forming a common boundary of two bodies, spaces, or phases.” Tr. 476:14–24; Pls.’ Ex. X In its verb form, to interface simply means “to join by means of an interface.” Pls.’ Ex. X.

Thus, so long as the first mounting adaptor portion, when assembled with the rest of the ColorSnap, touches or shares a boundary with the mounting clamp, it can properly be said to interface with the mounting clamp.

d. Second Mounting Adaptor Portion Interfaces with the Cross Member

The second mounting adapter portion in the top block interfaces with the cross member because it hooks onto the cross member and touches it.

So long as the second mounting adaptor portion, when assembled with the rest of the ColorSnap, touches or shares a boundary with the cross member, it therefore can properly be said to interface with the cross member.

Because all four of these elements are found in ColorSnap's top block, the second limitation of Claim 15 is found in the ColorSnap system.

3. First and Second Fasteners

The third limitation of Claim 15 requires “first and second fasteners that anchor said first adaptor portion of said first and second mounting adaptors, respectively, to said first and second mounting clamps, respectively.”

The Claim Construction Order does not define “fasteners,” but the Court finds that “fasteners” in the metal roofing context commonly refer to screws or bolts. *See, e.g.*, Pls.’ Ex. CC (article discussing “Fastener Compatibility with Profiled Metal Roof and Wall Panels”).

The record makes clear that the ColorSnap system uses fasteners, i.e. bolts, to anchor the top block to the mounting clamp, regardless of which type of clamp is used. Tr. 132:19–133:12, 135:15–136:5, 229:8–230:8 . The issue is whether ColorSnap's top block has a “first adaptor portion.” The Court has already determined that ColorSnap's top block has a “first adaptor portion,” and that this distinct area of the adaptor sits on top of the mounting clamp. The top

block must be secured to the clamp with a fastener; otherwise, the system will not hold anything up. Tr. 448:18–20.

The Court therefore finds that this limitation is present in the ColorSnap system.

4. Cross Member

The fourth limitation of Claim 15 requires that the mounting system feature a cross member.

The Claim Construction Order defined a cross member as “A panel with a channel adapted to receive a roofing material and having a rear portion with an outwardly extending multisurfaced protrusion designed to mate with corresponding substantially inverse surfaces of the second portion of the mounting adaptor.” Claim Const. Order at 11–12. One of ColorSnap’s components is what PMC refers to as an “extruding rail.” At trial, PMC witnesses did not dispute that the rail is designed so that a color strip may be inserted into front portion of it. *See, e.g.*, Tr. 590:17–591:3 (testimony of Tomas Kovacs). The extruding rail therefore features a “panel with a channel adapted to receive a roofing material.” Tr. 136:6–10. That panel, and the way in which it receives roofing material, can be seen in the images captured from a ColorSnap promotional video below:



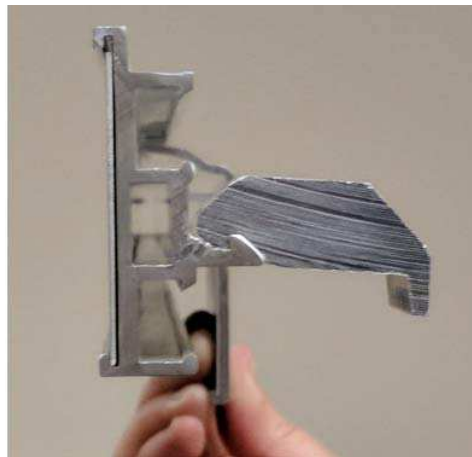
Def.’s Ex. 39 at 00:34, 00:35; *see also* Def.’s Ex. 73 (extruding bar with color strip).

PMC disputes, however, that this rail has a “rear portion with an outwardly extending multisurfaced protrusion designed to mate with corresponding substantially inverse surfaces of

the second portion of the mounting adaptor.” Tr. 469:1–17. PMC argues that there is no mating between these surfaces because, according to their expert Robert Mercier, the top block merely sits on the rail. Tr. 462:8–19. To mate, Mr. Mercier contended, would require that a connection be formed to keep the adapter in place without any further support. *Id.*; see also PMC Post-Trial Brief ¶ 64.

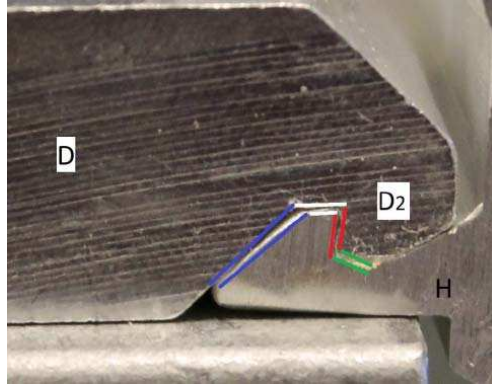
The Court gives little weight to Mr. Mercier’s testimony, as his expertise in this field is rather limited.⁵ The Court further notes that, were Mr. Mercier correct, the VersaClip and cross-member of the ColorGard—the preferred embodiment of the patent—would not mate, either, as the VersaClip also needs additional support to be held in place.

The second portion of the mounting adaptor, as discussed above, is the portion of the top block that is shaped like a hook. That portion is not merely sitting on the protrusion—it interlocks with it and is clearly designed to do so, as seen in this image:



Pls.’ Ex. DDDDD. The substantially inverse surfaces of the mounting adaptor’s second portion are clearly identified in the image marked up below:

⁵ Significantly, Mr. Mercier conceded having learned how to calculate snow loads, a figure necessary to determining the impact of snow on a roof, Tr. 116:1–7, for purposes of this trial, even though he did not know how to calculate these figures at the time of his deposition. Tr. 484:3–488:9. Mr. Mercier further conceded that before joining PMC he was not familiar with standing seam metal roofs, or with snow retention systems for use on standing seam metal roofs. Tr. 488:1–9.



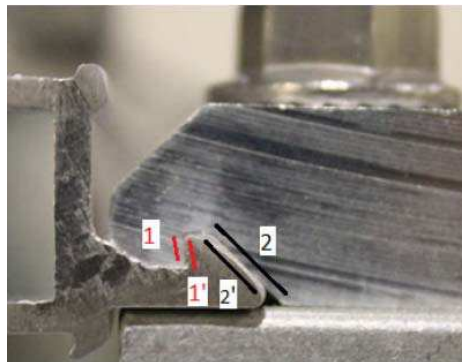
Pls.’ Ex. BBBB. As seen here, the protrusion lines up with these surfaces.

The Court therefore finds that this limitation is present in the ColorSnap system.

5. First and Second Means

The fifth limitation requires that the mounting system has “first and second means for detachably interconnecting said cross member with said second adaptor portion of said first and second mounting adaptors, respectively.” The Claim Construction Order construed this limitation as “first and second surfaces of the second portion of each mounting adaptor that interface with substantially inverse surfaces of the cross member protrusion.” Claim Const. Order at 12–14.

This limitation is, in essence, the corollary of the above limitation. In other words, this limitation requires that the mounting adaptor’s two surfaces line up with the protrusion’s substantially inverse surfaces. The top block does have two such surfaces, as identified by Mr. Haddock in the image below:



Pls.' Ex. EEEEE.

The Court therefore finds that this limitation is present in the ColorSnap system.

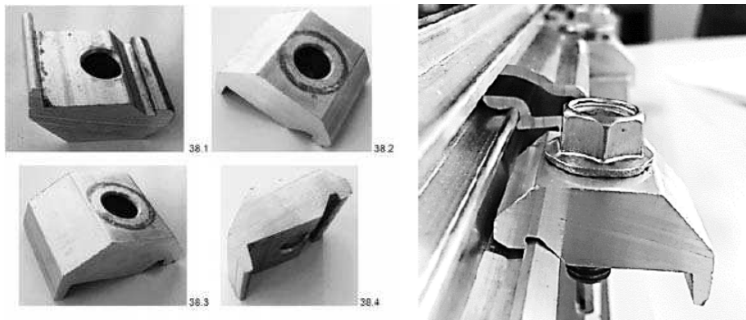
B. Claim 16

Claim 16 is a dependent claim of the '629 Patent, and reads as follows:

16. The mounting system of claim 15, wherein:
said first adaptor portion of each of said first and second mounting
adaptors comprises a first hole, wherein said first and second
fasteners extend through said first hole on said first and second
mounting adaptors, respectively, and into said first and second
mounting clamps, respectively.

Pls.' Ex. A. This claim simply requires that, if all the elements of Claim 15 are met, the first mounting adaptor portion have a hole that the fasteners (from the third limitation of Claim 15) can be inserted into before being screwed or bolted into the mounting clamp.

The top block's first area, indeed, has such a hole through which the fastener is inserted, before being into the mounting clamp, as seen in these images:



Def.'s Ex. 24; Pls.' Ex. CCCCC.

The sole limitation of Claim 16 therefore is present in the ColorSnap system.

IV. FINDINGS OF FACT: THE ISSUE OF IRREPARABLE HARM

As Plaintiffs seek a permanent injunction, they bear the burden of showing that any infringement of the '629 Patent caused irreparable harm to them. This section sets forth the Court's findings of fact as to the harm flowing from PMC's manufacture, sale, and distribution

of ColorSnap. The Court’s conclusions of law address whether these harms are sufficient to justify permanent injunctive relief.

A. Market Share & Lost Sales

Mr. Haddock testified that “any product that [PMC] sell using this [patented] technology means it takes a bite out of sales that our company would have had instead.” Tr. 145:5–8.

Plaintiffs occupy “about 80 percent of this specific market space,” “so it’s logical to presume that 80 percent of the sales that they make of this system would have fallen to our company instead.” Tr. 145:10–14.

This statement as to the size of ColorGard’s market share—which was not supported by any documentation or other evidence in the record—does not necessarily lead to the conclusion that every ten sales of the ColorSnap denies Plaintiffs eight sales of ColorGard. Mr. Haddock’s claim does not account for other market competitors, or the fact that customers of PMC may already be pursuing an alternative to the dominant market leader.

Indeed, on cross-examination, Mr. Haddock admitted that Plaintiffs had not commissioned any studies that could assess or quantify ColorSnap’s impact on market share or sales. Tr. 196:21–197:12. He also admitted that he could not identify any lost sales or lost customers due to ColorSnap. Tr. 198:11–20. He claimed that he could not do that because he did not know PMC’s customer list. Tr. 198:15–16.

In the post-trial oral argument, Plaintiffs claimed that they could not be expected to assess lost sales because they sell ColorGard through distribution and therefore do not know their own specific sales or end customers. Post-Trial Arg. Tr. 29:24–30:1. It is not clear from the record, however, why Plaintiffs could not have reasonably sought to obtain any such

information, or other information in PMC's possession relevant to assessing markets share or lost sales, during discovery.

While Plaintiffs are not required to show lost market share or sales through direct evidence, they must still make some prima facie showing in this regard. *See, e.g., Robert Bosch LLC v. Pylon Mfg. Corp.*, 659 F.3d 1142, 1148 (Fed. Cir. 2011) (“While it is true that at least some of Bosch’s loss of market share is attributable to other competitors, it is undisputed that it was Pylon that secured the Wal–Mart account, which alone accounts for a substantial portion of the entire market. Pylon argues that Bosch presumes ‘that Wal–Mart would turn to Bosch if Pylon were enjoined.’ Bosch, however, makes no such presumption. Rather, Bosch relies on the fact that it previously secured the Wal–Mart account as circumstantial evidence that it would reclaim Wal–Mart’s business were Pylon enjoined. While the party seeking an injunction bears the burden of showing lost market share, this showing need not be made with direct evidence. Here, Bosch made a prima facie showing of lost market share, and Pylon proffered no evidence to rebut that showing.”) (internal citations omitted).

Because Plaintiffs have not made the necessary showing of lost market share or sales, the Court does not find that Plaintiffs have suffered a loss of market share or sales due to PMC’s conduct. This does not mean that the Court finds the inverse to be true (that no loss of market share or sales occurred), but simply that there is insufficient evidence in the record to support such a finding.

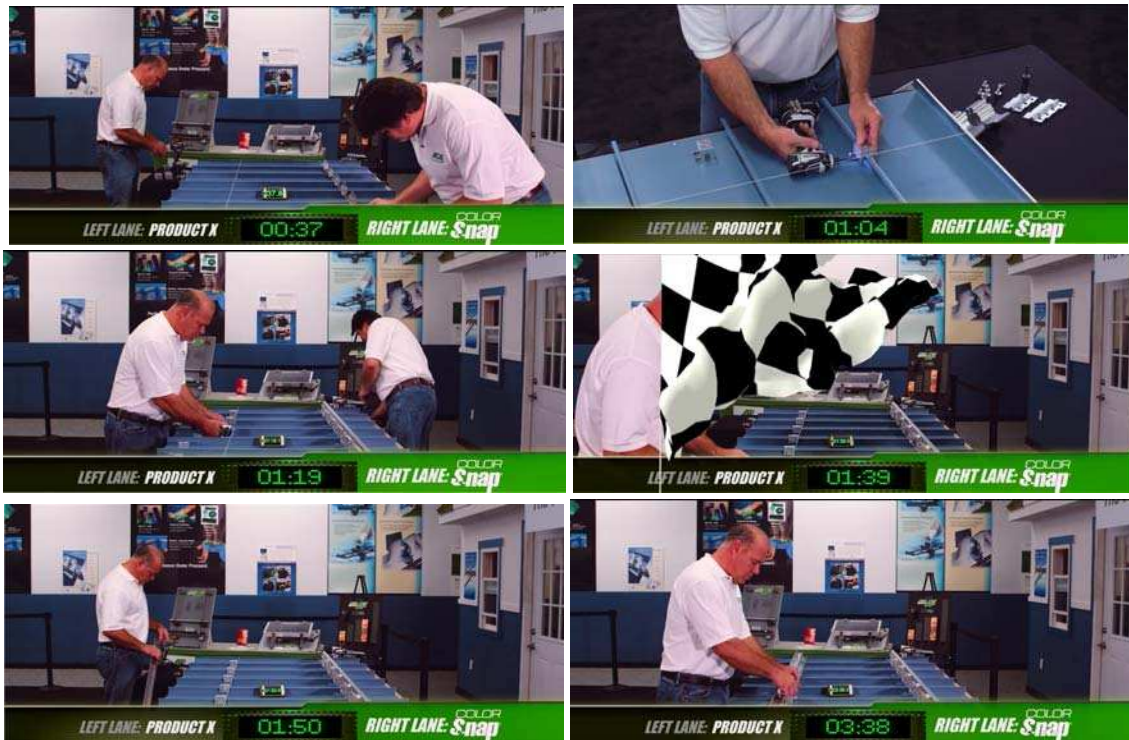
B. Reputational Harm

Mr. Haddock also testified about harms to Plaintiffs’ reputation as a result of PMC’s manufacture, sale, and distribution of ColorSnap. Plaintiffs have established their reputation—

and the reputation of Mr. Haddock—as a primary innovator in this field. *See supra* at §§ II(B) & II(C). They also have established the harms to their reputation.

First, the appearance of infringement has led to numerous inquiries from distributors and customers. Tr. 144:24–145:4. These inquiries were apparently so persistent that, apart from filing this lawsuit, Plaintiffs also took other measures, such as announcing the filing of this litigation at a distributorship conference, Tr. 207:8–10, and later issuing a press release, shortly before an industry trade show, to update distributors and customers of the status of this case. Def.’s Ex. 55; Tr. 205:11–25, 207:3–7. That press release was, at the time of trial, still available on the S-5! website. Tr. 286:25–287:2.

Second, PMC’s marketing of ColorSnap against ColorGard has resulted in serious reputational harms to Plaintiffs. Mr. Haddock specifically pointed to a video in which PMC conducted a “speed test” of ColorSnap against ColorGard. The following images captured from that video depict that “test”:



Pls.’ Ex. DDDD at 1:37, 2:04, 2:19, 2:39, 2:50, and 3:12.

Mr. Haddock testified that this video has been shown at trade shows and is available to watch online. Tr. 146:3–9. Mr. Haddock explained that it harms Plaintiffs because its comparison of ColorSnap to ColorGard implies that ColorSnap looks like ColorGard, installs faster than ColorGard, and therefore “must be as good as or better than” ColorGard. Tr. 146:13–22.

Mr. Haddock also testified that in manufacturing, selling, and distributing ColorSnap, PMC was “trying to piggyback and usurp some of our brand recognition and our brand integrity by using such a similar name.” Tr. 98:4–10. As he elaborated at trial:

Well, by creating a name so similar and a product so similar and videos that compare our product with their product, I think they’re usurping our brand integrity because users or viewers of that kind of media would rather naturally conclude, well, gosh, it sounds the same as ColorGard, it looks the same as ColorGard . . . it must have all the brand integrity behind it that ColorGard does. And part of that brand integrity involves the extensive load testing that we have done on all our parts and systems. And that’s what really makes us so different than most of our competitors. By using the same name and by using very similar shapes and principles with a slide-in color strip, I believe they are usurping our brand integrity. They are piggybacking on all the work that we have done in test labs in this establishing the fact that our systems are all engineered.

Tr. 220:12–221:6.

PMC argues that Plaintiffs have “produced no evidence of brand diminution or other non-economic harm that may result from any future infringement by PMC.” Def.’s Post-Trial Brief ¶ 161. The Court disagrees.

Indisputably, the purpose for the public dissemination of PMC’s marketing video is to diminish the reputation of the ColorGard product in the marketplace, i.e., to show that ColorSnap is a better product in order to convince consumers to buy ColorSnap instead. Because of PMC’s

literal infringement of the ColorGard product, which facilitated the introduction and availability of the ColorSnap product in the marketplace, Plaintiffs have suffered an irreparable harm to its reputation, a reputation diminished by the dissemination of PMC's comparison video and a harm not remedied by money alone.

The Court therefore finds that the sale, manufacture, and distribution of ColorSnap has resulted in significant intangible reputational harm to Plaintiffs.

V. CONCLUSIONS OF LAW

This case involves the issue of patent infringement and any appropriate remedy. This Court, however, also must address two other legal issues: (1) whether Mr. Mercier's proffered expert testimony should be excluded; and (2) whether Mr. Bailey violated the Court's sequestration order and, if so, whether sanctions should be imposed.

A. Expert Dispute

To prove patent infringement, parties typically rely heavily on the testimony of expert witnesses. This case is no exception. The parties dispute, however, the relevant qualifications necessary for an expert in this case.

Under Federal Rule of Evidence 702, courts may permit expert testimony if (1) the expert is qualified as an expert by their knowledge, skill, experience, training, or education; (2) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (3) the testimony is based on sufficient facts or data; (4) the testimony is the product of reliable principles and methods; and (5) the expert has reliably applied the principles and methods to the facts of the case. FED. R. EVID. 702.

During the bench trial, the Court admitted Mr. Haddock as an expert in the field of snow retention systems. Tr. 121:23–123:9. PMC did not challenge Mr. Haddock's admission. *Id.*

Plaintiffs objected, however, to PMC’s proposed expert, Mr. Mercier, who was offered as an expert in the fields of manufacturing, engineering, and product design, including snow retention systems. Tr. 413:20–23. Plaintiffs challenged both his qualifications and his methodology. The Court reserved decision during trial and now concludes that Mr. Mercier may be admitted as an expert—but, as noted above, has given little weight to his opinions, given his limited experience with snow retention systems.

1. Qualifications

In assessing expert qualifications, courts must determine whether the proposed expert is “qualified as an expert by knowledge, skill, experience, training, or education[.]” FED. R. EVID. 702; *see Zaremba v. Gen. Motors Corp.*, 360 F.3d 355, 360 (2d Cir. 2004) (upholding exclusion of expert with “meager qualifications” to offer opinions as to automobile design); *Nora Beverages, Inc. v. Perrier Grp. of Am., Inc.*, 164 F.3d 736, 746 (2d Cir. 1998) (upholding district court’s exclusion of proposed expert whose experience did not qualify him to testify on contract negotiations).

While Mr. Mercier, by his own admission, lacked familiarity with standing seam metal roofs prior to joining PMC, and has not personally installed a ColorSnap system on a customer’s roof, Pls.’ Post-Trial Brief ¶¶ 62–67, these limitations go more to weight than to admissibility.

Plaintiffs cite to the Federal Circuit’s decision in *Sundance, Inc. v. Demonte Fabricating Ltd.*, 550 F.3d 1356 (Fed. Cir. 2008), as a basis for excluding Mr. Mercier’s testimony. In *Sundance*, the Federal Circuit found the proffered expert had “no experience whatsoever ‘in the field of tarps or covers,’” the relevant field of expertise for that case. *Id.* at 1363. Here, Mr. Mercier has relevant experience, in the field of engineering, although not nearly as much experience as Mr. Haddock.

2. Reliable Methodology

Where expert testimony's "factual basis, data, principles, methods, or their application are called sufficiently into question, the trial judge must determine whether the testimony has a 'reliable basis in the knowledge and experience of [the relevant] discipline.'" *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 149 (1999) (quoting *Daubert v. Merrell Dow Pharm.*, 509 U.S. 579, 592 (1993)).

Again, as with his credentials, any issues regarding Mr. Mercier's methodology go primarily to weight, not admissibility.

The Court therefore declines to exclude his testimony.

B. The Alleged Violation of the Sequestration Order

Before the bench trial, the Court granted Plaintiffs' motion *in limine* to sequester all fact witnesses during trial, with the caveat that one properly designated PMC corporate representative who was also a fact witness could remain in the courtroom during the entire trial. *In Limine* Order at 8.

Plaintiffs have now moved for sanctions against PMC for violating the terms of the sequestration order. Specifically, Plaintiffs allege that Mr. Bailey "knew he was sequestered and could not listen to witnesses during trial, but he nevertheless participated in after-Court briefing sessions where testimony of the other witnesses was freely and openly discussed." Pls.' Post-Trial Brief ¶ 109 (citing Tr. 869:16–870:21, 885:6–10). Plaintiffs argue that this conduct was "a clear violation of this Court's sequestration order, with his company, PMC, being the beneficiary of that violation." *Id.* Plaintiffs call for the Court to strike Mr. Bailey's testimony and hold him in contempt as sanctions for his conduct. *Id.* ¶ 112.

1. Legal Standard

The Supreme Court has held that when a witness violates a sequestration order, the court may cite the witness for contempt, instruct a jury to consider the violation in assessing the witness's credibility, or exclude the witness's testimony. *Holder v. United States*, 150 U.S. 91, 92 (1893). Exclusion, however, is only warranted "under particular circumstances . . . as within the sound discretion of the court." *Id.*

The Second Circuit therefore has recognized that "[v]iolation of an order excluding witnesses does not automatically bar a witness from testifying," *U.S. v. Vario*, 484 F.2d 1052, 1055 (2d Cir. 1973) (citing *Holder*, 150 U.S. at 92). The Second Circuit has, also upheld a court's discretion not to strike testimony upon a finding that no prejudice had been suffered from a violation of the order, but to instead instruct the jury to consider this fact in assessing the witness's credibility. *Id.* at 1056 ("The court ruled that the testimony should not be stricken only after specifically requesting of Vario's attorney a showing of the prejudice Vario had suffered as a result of this violation of the exclusion order. No such showing was made, nor could there have been such a showing. The fact that Donohue had been in court to hear Fortuna's testimony was called to the jury's attention While Donohue's testimony was helpful to the government in attacking Vario's credibility and in establishing that Vario had gross income which he was concealing, it cannot be said that either Donohue's testimony or his credibility was 'crucial' to the government's case. The trial court did not err in refusing to strike Donohue's testimony.").

When prejudice is shown, however, district courts have exercised their discretion to exclude testimony. *See, e.g., Paradigm All., Inc. v. Celeritas Techs.*, 722 F. Supp. 2d 1250, 1273 (D. Kan. 2010) ("Therefore, we conclude that probable prejudice to Paradigm resulted from

Celeritas' violation of the Court's sequestration order, and that the limited exclusion of Evans' testimony was proper.").

2. Analysis

As an initial matter, the Court notes that Mr. Bailey's conduct, as alleged, did not violate the express terms of the sequestration order. While Plaintiffs contend that the order barred "all prospective trial witnesses . . . from hearing, overhearing, being advised of, reading, and discussing in-court witness testimony," Pls.' Post-Trial Brief ¶ 108, nothing in the Court's order provided for more than fact witnesses' exclusion from the courtroom during testimony. Nevertheless, courts have recognized that while the plain language of Rule 615 refers only to exclusion from the courtroom so that witnesses cannot hear other witnesses' testimony, Rule 615 has been given a "long-standing and consistent judicial construction of prohibiting all prospective witnesses from hearing, overhearing, being advised of, reading, and discussing, the previously given in-court testimony of witnesses on their own side as well as the opposite side." *Weeks Dredging & Contracting, Inc. v. U.S.*, 11 Cl. Ct. 37, 53 (1986).

The Court does not find, however, that Plaintiffs have shown that Mr. Bailey violated this broader understanding of the sequestration order. Plaintiffs have cited statements by Mr. Bailey under cross-examination in which he agreed with Plaintiffs' counsel' that he had "discussed" with several PMC witnesses the testimony they "gave in this case – in this trial," that he did this "in the evening," and that he "spoke with counsel" about the testimony of witnesses in this case. Tr. 869:16–870:21, 885:6–10.

These alleged admissions came in the context of cross-examination in which Plaintiffs were asserting that Mr. Bailey had reviewed the trial transcripts of other witnesses' testimony.

On re-direct, however, Mr. Bailey clarified that he had not reviewed any transcripts from this trial, but only from his own deposition. Tr. 885:18–886:15.

Putting the transcript issue aside, Mr. Bailey’s statements still do not support Plaintiffs’ claim that Mr. Bailey “participated in after-Court briefing sessions where testimony of the other witnesses was freely and openly discussed.” Pls.’ Post-Trial Brief ¶ 109. Yet even if this were true, the Court does not find that Plaintiffs have shown that they were seriously prejudiced by Mr. Bailey’s testimony. Plaintiffs claim Mr. Bailey’s testimony on willfulness was crucial, because he testified that PMC had primarily relied on Mr. Wasserbauer’s September 2015 preliminary opinion. Pls.’ Post-Trial Brief ¶ 109. That fact is well-supported, however, by other testimony already in the record. *See* Tr. 331:17–332:2, 343:4–346:12. Nor is that fact persuasive on, or even determinative of, the ultimate question of willfulness here.

The Court therefore finds that Mr. Bailey’s testimony does not need to be excluded. Instead, the Court—as the finder of fact here—has taken Mr. Bailey’s statements into consideration in evaluating the credibility of his testimony.

C. Direct Infringement

1. Legal Standard

“To establish infringement, every limitation set forth in a patent claim must be found in an accused product or process exactly or by a substantial equivalent.” *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1535 (Fed. Cir. 1991) (citing *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1259 (Fed. Cir. 1989)). “The patentee bears the burden of proving infringement by a preponderance of the evidence.” *Id.* (citing *Amstar Corp. v. Envirotech Corp.*, 823 F.2d 1538, 1545 (Fed. Cir. 1987)).

2. Literal Infringement

“To establish literal infringement, every limitation set forth in a claim must be found in an accused product, exactly.” *Southwall Techs.*, 54 F.3d at 1575. “Infringement, both literal and under the doctrine of equivalents, is an issue of fact.” *Id.* (citing *SSIH Equip.*, 718 F.2d at 376).

The Court has found that all the limitations of independent claim 15 and dependent claim 16 are found in the accused product. *See supra* at § III.

The Court therefore concludes that, as a matter of law, the ColorSnap system literally infringes on Claims 15 and 16 of the ‘629 Patent.

D. Non-Infringement Counterclaim

Because the Court has found that the ColorSnap system literally infringes Claims 15 and 16 of the ‘629 Patent, Defendant’s counterclaim of non-infringement therefore must be denied.

E. Remedy: Permanent Injunction

The Federal Circuit has recognized that “[t]here are several types of relief for ongoing infringement that a court can consider: (1) it can grant an injunction; (2) it can order the parties to attempt to negotiate terms for future use of the invention; (3) it can grant an ongoing royalty; or (4) it can exercise its discretion to conclude that no forward-looking relief is appropriate in the circumstances.” *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 35 (Fed. Cir. 2012) (citing *Telcordia Techs., Inc. v. Cisco Sys., Inc.*, 612 F.3d 1365, 1379 (Fed. Cir. 2010); *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1314–15 (Fed. Cir. 2007)).

“[T]he decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts.” *eBay Inc. v. MercExchange LLC*, 547 U.S. 388, 394 (2006). “[S]uch discretion must be exercised consistent with traditional principles of equity, in patent disputes no less than in other cases governed by such standards.” *Id.*

Before a court can grant a permanent injunction, plaintiffs in patent cases must demonstrate: (1) that they have suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to redress that injury; (3) that, considering the balance of hardships between plaintiffs and defendants, injunctive relief is warranted; and (4) that the public interest would not be disserved by a permanent injunction. *Id.* at 391 (citing *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 311–13 (1982); *Amoco Prod. Co. v. Gambell*, 480 U.S. 531, 542 (1987)); *see also ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1337 (Fed. Cir. 2012) (“For a permanent injunction to issue, the party requesting an injunction must demonstrate that: (1) it has suffered an irreparable injury; (2) legal remedies, such as money damages are inadequate compensation; (3) the balance of hardships warrants an injunction; and (4) the public interest would not be disserved by an injunction.”) (citing *eBay*, 547 U.S. at 391).

As described below, because Plaintiffs have met their burden with respect to each of these four factors, the Court finds that a permanent injunction barring PMC from selling or manufacturing ColorSnap for the remainder of the life of the patent is the appropriate equitable remedy for PMC’s infringement of the ‘629 Patent.

1. Irreparable Harm

a. Legal Standard Post-*eBay*

Before the Supreme Court’s decision in *eBay*, district courts generally “applied a presumption of irreparable harm following judgment of infringement . . . to support the issuance of permanent injunctions.” *Robert Bosch LLC v. Pylon Mfg. Corp.*, 659 F.3d 1142, 1148 (Fed. Cir. 2011) (citing *Fisher–Price, Inc. v. Safety Ist, Inc.*, 279 F.Supp.2d 526, 528–29 (D. Del. 2003); *Boehringer Ingelheim Vetmedica, Inc. v. Schering–Plough Corp.*, 106 F.Supp.2d 696, 701 (D. N.J. 2000)). In the wake of *eBay*, however, the Federal Circuit discarded that presumption,

holding that a finding of infringement does not automatically create a presumption of irreparable harm. *Id.* at 1149 (“We take this opportunity to put the question to rest and confirm that *eBay* jettisoned the presumption of irreparable harm as it applies to determining the appropriateness of injunctive relief.”).

It is well-established that the type of harm that may satisfy the “irreparable harm” inquiry may vary widely. *See Celsis in Vitro, Inc. v. CellzDirect, Inc.*, 664 F.3d 922, 930 (Fed. Cir. 2012) (“Price erosion, loss of goodwill, damage to reputation, and loss of business opportunities are all valid grounds for finding irreparable harm.”). More broadly, “[e]vidence showing that no amount of monetary damages, however great, could address the harm tends to show that it is an irreparable harm.” *Metalcraft of Mayville, Inc. v. Toro Co.*, 848 F.3d 1358, 1368 (Fed. Cir. 2017) (citing *Celsis in Vitro*, 664 F.3d at 930).

Since *Bosch*, the Federal Circuit has articulated a new, second component of the irreparable injury inquiry: a “causal nexus” standard. “To show irreparable harm, it is necessary to show that the infringement caused harm in the first place.” *Apple Inc. v. Samsung Elecs.* (*Apple I*), 678 F.3d 1314, 1324 (2012). The court further explained, upholding the district court’s denial of a preliminary injunction, that

[s]ales lost to an infringing product cannot irreparably harm a patentee if consumers buy that product for reasons other than the patented feature. If the patented feature does not drive the demand for the product, sales would be lost even if the offending feature were absent from the accused product. Thus, a likelihood of irreparable harm cannot be shown if sales would be lost regardless of the infringing conduct.

Id. (citations omitted).

Later that year, the Federal Circuit spelled out that a showing that denial of injunctive relief will result in future harm is also required. *Apple Inc. v. Samsung Elecs.* (*Apple II*), 695

F.3d 1370, 1374 (Fed. Cir. 2012) (“[T]o satisfy the irreparable harm factor in a patent infringement suit, a patentee must establish both of the following requirements: 1) that absent an injunction, it will suffer irreparable harm, and 2) that a sufficiently strong causal nexus relates the alleged harm to the alleged infringement.”).

The following year, the Federal Circuit affirmed that these requirements also apply to permanent injunctions. *Apple Inc. v. Samsung Elecs. (Apple III)*, 735 F.3d 1352, 1362 (Fed. Cir. 2013) (“The reasoning in *Apple I* and *Apple II* . . . applies equally to the preliminary and permanent injunction contexts.”). The Circuit also clarified, however, that plaintiffs are not required to prove that the infringing features were the sole reason consumers purchased a defendant’s products:

It is true that Apple must “show that the infringing feature drives consumer demand for the accused product.” *Apple II*, 695 F.3d at 1375. It is also true that this inquiry should focus on the importance of the claimed invention in the context of the accused product, and not just the importance, in general, of features of the same type as the claimed invention. *See id.* at 1376 (“To establish a sufficiently strong causal nexus, Apple must show that consumers buy the Galaxy Nexus because it is equipped with the apparatus claimed in the ‘604 patent—not because it can search in general, and not even because it has unified search.”). However, these principles do not mean Apple must show that a patented feature is the one and only reason for consumer demand. Consumer preferences are too complex—and the principles of equity are too flexible—for that to be the correct standard. Indeed, such a rigid standard could, in practice, amount to a categorical rule barring injunctive relief in most cases involving multi-function products, in contravention of *eBay*. *See eBay*, 547 U.S. at 393, 126 S. Ct. 1837 (rejecting “expansive principles suggesting that injunctive relief could not issue in a broad swath of cases”).

Thus, rather than show that a patented feature is *the exclusive reason* for consumer demand, Apple must show some connection between the patented feature and demand for Samsung’s products. There might be a variety of ways to make this required showing, for example, with evidence that a patented feature is one of several features that cause consumers to make their purchasing

decisions. It might also be shown with evidence that the inclusion of a patented feature makes a product significantly more desirable. Conversely, it might be shown with evidence that the absence of a patented feature would make a product significantly less desirable.

Id. at 1364.

Since *Apple III*, the Federal Circuit has expanded even more on the purposes served by the causal nexus requirement:

The causal nexus requirement ensures that an injunction is only entered against a defendant on account of a harm resulting from the defendant's wrongful conduct, not some other reason. For example, it ensures that an injunction is not entered on account of "irreparable harm caused by otherwise lawful competition." *Apple III*, 735 F.3d at 1361. Whether a patentee's irreparable harm stems from infringement of its patents is entirely independent of the scope of the proposed injunction The purpose of the causal nexus requirement is to establish the link between the infringement and the harm, to ensure that there is "some connection" between the harm alleged and the infringing acts. *Id.* at 1364. Thus, a causal nexus linking the harm and the infringing acts must be established regardless of whether the injunction is sought for an entire product or is narrowly limited to particular features.

Apple Inc. v. Samsung Elecs. (Apple V), 809 F.3d 633, 639 (Fed. Cir. 2015).

b. Application of the Standard

Plaintiffs have not directly addressed the "causal nexus" standard. Instead, they have asserted that other Federal Circuit case law suggests that where products directly compete, irreparable harm is still presumed:

Factor one is directed to irreparable harm that RMH would suffer if the sought injunction is not granted. Where the infringer's product is competing for sales with the patent product, such harm is assumed. *See Abbott Labs. v. Sandoz, Inc.*, 544 F.3d 1341, 1361-62 (Fed. Cir. 2008) (concluding that precedent supports the district court's finding that irreparable harm existed due to defendant causing "market share and revenue loss"). Indeed, the evidence here establishes that PMC actually markets the COLORSnap™ system against the patented ColorGard® system. (Trial Ex. DDDD; Trial Tr. vol. 1, 238:14-16.) The products are in competition (Trial Tr.

vol. 1, 236:15-17), and continued manufacture or sale of the COLORSnap™ system in the U.S. thus would irreparably harm RMH.

Pls.’ Post-Trial Brief ¶ 149; *see also* Post-Trial Arg. Tr. 32:24–25 (“When the infringer’s products compete, irreparable harm is assumed.”).

Plaintiffs have established that the ColorSnap system directly competes with ColorGard, and PMC does not dispute this. But that showing is clearly insufficient, standing alone, to prove irreparable harm in light of *eBay* and the *Apple* decisions. *See Apple V*, 809 F.3d at 639 (“The causal nexus requirement ensures that an injunction is only entered against a defendant on account of a harm resulting from the defendant’s wrongful conduct, not some other reason. For example, it ensures that an injunction is not entered on account of ‘irreparable harm caused by otherwise lawful competition.’”); *see also Bosch*, 659 F.3d at 1148–49 (noting that “In *eBay*, the Supreme Court made clear that broad classifications and categorical rules have no place in this inquiry,” and that “a successful patent infringement plaintiff can no longer rely on presumptions or other short-cuts to support a request for a permanent injunction”) (internal citations, quotation marks, and alterations omitted). This is especially the case here, where Plaintiffs have not adduced specific evidence as to the size of any market share or sales lost to ColorSnap. *See supra* at § IV(A).

Plaintiffs have, however, asserted that they have suffered serious reputational harms from PMC’s manufacture, sale, and distribution of ColorSnap. Pls.’ Post-Trial Brief ¶ 150. The Court has, moreover, set forth specific findings of fact as to these reputational harms. *See supra* at § IV(B).

The Court finds that Plaintiffs have established both that they have suffered past harm to their reputation, that this is an ongoing harm that tarnishes their status as an innovator in the

market for snow retention systems. *See Tinnus Enters. v. Telebrands Corp.*, 846 F.3d 1190, 1208 (Fed. Cir. 2017) (“The record contains additional evidence of harm after the ’066 patent’s issuance that is sufficient to support a finding of irreparable harm. For example, a review for Tinnus’s Bunch O Balloons product on Amazon—dated a few weeks after the patent issued—states that the customer liked the ‘off brand’ Bunch O Balloons product better than the ‘name brand’ Balloon Bonanza. This establishes persisting harm to Tinnus’s reputation and tarnishes its status as the innovator in this market.”) (internal citations omitted).

When evaluating reputational injury, “it is undisputed that such an injury is irreparable; the question is whether this injury will likely occur.” *Apple V*, 809 F.3d at 648 (Reyna, J., concurring).

The Court finds that Plaintiffs are likely to suffer future harm to their reputation if ColorSnap is, in the wake of this lawsuit, continued to be sold before the expiration of their patent. To show a likelihood of future harm, “the plaintiff must show that an irreparable injury is more likely than not to occur absent an injunction.” *Apple V*, 809 F.3d at 652 (Reyna, J., concurring) (citing *Trebro Mfg. v. Firefly Equip.*, 748 F.3d 1159, 1166 (Fed. Cir. 2014)).

The Court finds the distributor and customer complaints and inquiries reported by Mr. Haddock, the public announcement of this litigation, and the press release updating distributors and customers of its status to be clear evidence that, absent an injunction, the manufacture, sale, and distribution of ColorSnap will further harm Plaintiffs’ reputation, particularly given PMC’s public dissemination of a comparison video.

As the Federal Circuit has recognized, “[i]rreparable injury encompasses different types of losses that are often difficult to quantify, including lost sales and erosion in reputation and brand distinction.” *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1344 (Fed.

Cir. 2013). There, in discussing the underlying district court opinion involving patent infringement of snowplow mounting assemblies, the court used the analogy of two car brands: a Mercedes Benz S550 and a Ford Taurus. *Id.* It then noted that: “if the Ford made its place in the market by infringing on the intellectual property of the Mercedes and capitalized on its similarity to the better product, then the harm to the Mercedes product might go beyond a simple counting of lost sales – some of which would occur anyway if the Ford marketed itself effectively as a ‘Mercedes at half the price.’” *Id.* Indeed, “[t]he Mercedes would lose some of its distinctiveness and market lure because competitors could contend that they had ‘similar features’ without noting that those features infringe Mercedes’ proprietary technologies.” *Id.*

That is also the case here. PMC has caused reputational harm by putting a product on the market, ColorSnap, whose features infringe on RMH’s patent, a harm compounded by the release of a comparison video suggesting that ColorSnap is a better product. Without a permanent injunction on the ColorSnap product for the remainder of this patent’s life, this reputational damage—fostered by PMC’s video—would continue. So, too, would Plaintiffs’ loss of their right to the exclusivity of the ‘629 Patent. *See id.* at 1344–45 (“Douglas’s reputation would be damaged if its dealers and distributors believed it did not enforce its intellectual property rights Exclusivity is closely related to the fundamental nature of patents as property rights. It is an intangible asset that is part of a company’s reputation, and here, Douglas’s exclusive right to make, use, and sell the patented inventions is under attack by Buyers’s infringement.”).

Significantly, PMC’s infringement enabled it to launch ColorSnap quickly, as evident from the factual record in this case. The timeline for the development of the ColorSnap product by PMC, of which there is extensive evidence in the factual record, indicates that, absent

infringement of the ‘629 Patent, ColorSnap could not have been developed and put on the market so fast. Had the ColorSnap been designed in a non-infringing way, PMC would have had to develop the type of expertise in designing products capable of retaining snow and preventing rooftop avalanche. No one who testified at trial from PMC—not Mr. Mercier, Mr. Kovacs, Mr. Bailer or either Wasley—demonstrated the expertise necessary to design this product in just a few weeks.

Indeed, they did not. Instead, PMC relied on the testing conducted by Mr. Haddock in connection with that technology, and the design and rapidly brought its ColorSnap product, in order to compete with ColorGard. The record also establishes that PMC then aggressively marketed ColorSnap as the faster alternative to ColorGard, including through demonstrations at MetalCon—the major metal construction industry convention—and through videos depicting “face offs” between the products, *see, e.g.*, Def.’s Ex. 39, suggesting that the ColorGard product was not so innovative after all.

As a result, the Court finds that there is a sufficient “causal nexus” between PMC’s infringement of the ‘629 Patent and the reputational harms Plaintiffs have suffered from the manufacture, sale, and distribution of ColorSnap.

As emphasized in *Apple III*, the causal nexus showing does not require that Plaintiffs establish that the infringement was the sole cause of the irreparable harm. *Apple III*, 735 F.3d at 1334. It simply requires that Plaintiffs “show some connection between the patented feature and demand” for the infringing product. *Id.* The showing may also be made in a variety of ways. *Id.* (“There might be a variety of ways to make this required showing, for example, with evidence that a patented feature is one of several features that cause consumers to make their purchasing decisions. It might also be shown with evidence that the inclusion of a patented feature makes a

product significantly more desirable. Conversely, it might be shown with evidence that the absence of a patented feature would make a product significantly less desirable.”).

Plaintiffs have successfully shown that the absence of the infringing features of the ‘629 Patent would have either prevented the introduction of ColorSnap to the market, or would have made the ColorSnap significantly less desirable. Plaintiffs therefore have met their burden of showing irreparable harm.

2. Inadequate Remedy at Law

To show an inadequate remedy at law, the patentee must show that remedies available at law, such as monetary damages, “are inadequate to compensate for the irreparable harm suffered by the patentee,” *Apple V*, 809 F.3d at 644–45 (citing *eBay*, 547 U.S. at 391), a determination made by showing that the patentee’s losses are “difficult to quantify.” *See, e.g., id.* at 645 (“Sales lost by Apple to Samsung are difficult to quantify due to the ‘ecosystem effect’—that is, the effect the sale of a single product can have on downstream sales of accessories, computers, software applications, and future smartphones and tablets This factor strongly weighs in favor of Apple because, as the district court found, the extent of Apple’s downstream and network effect losses are very difficult to quantify.”).

The Court can assess this factor with respect to reputational harm. The Federal Circuit has characterized such harms as impossible to remedy through damages at law. *See Douglas Dynamics*, 717 F.3d at 1345 (“This court finds remedies at law inadequate to compensate Douglas for at least the reputation loss Douglas has suffered from Buyers’s infringement.”). Here, the Court similarly concludes that the full extent of the reputational harm suffered by Plaintiffs is difficult to quantify and therefore impossible to remedy through damages.

Plaintiffs therefore have met their burden of showing that an inadequate remedy at law exists to remedy the reputational harm they have suffered, are suffering, and will continue to suffer should an injunction not be entered.

3. Balance of Hardships

To satisfy this factor, “the patentee must show that the balance of hardships weighs in its favor,” which requires the Court to assess “the relative effect of granting or denying an injunction on the parties.” *Apple*, 809 F.3d at 645.

Absent an injunction, Plaintiffs will continue to suffer serious reputational harm, as outlined above. Meanwhile, an injunction will only prevent Defendants from selling ColorSnap until the expiration of the patent, approximately six months from now.

PMC does not argue that an injunction would cause PMC significant hardship. *See* Post-Trial Brief ¶ 167. Rather, it simply says that “PMC’s market participation pales in comparison to [Plaintiffs] and no hardship could conceivably result in the six months following any judgment in this case.” *Id.* PMC further contends that “any harm that could flow from PMC’s alleged infringement would be mitigated by the short term remaining on the patent.” *Id.* ¶ 164.

Plaintiffs correctly note, however, that the relatively brief period remaining on a patent is not relevant in assessing the balancing of hardships. Patent rights are no less valid or enforceable if there is one day or one year or the entire term left in the life of the patent. *See Atlas Powder Co. v. Ireco Chems.*, 773 F.2d 1230, 1234 (Fed. Cir. 1985) (“The fact that the patent has only one year to run is not a factor in favor of [the infringer] in the balance of equities. Patent rights do not peter out as the end of the patent term, usually 17 years, is approached.”).

For these reasons, the balance of the equities weighs heavily in Plaintiffs’ favor.

4. Public Interest

This factor requires the patentee to show that the public interest would not be disserved by a permanent injunction. *Apple*, 809 F.3d at 646.

PMC contends that the public interest in competition and a fair marketplace outweighs any contrary public interest. PMC is correct that the public often benefits from healthy competition. However, as the Federal Circuit has explained:

the public generally does not benefit when that competition comes at the expense of a patentee's investment-backed property right. To conclude otherwise would suggest that this factor weighs against an injunction in every case, when the opposite is generally true. We base this conclusion not only on the Patent Act's statutory right to exclude, which derives from the Constitution, but also on the importance of the patent system in encouraging innovation. Injunctions are vital to this system. As a result, the public interest nearly always weighs in favor of protecting property rights in the absence of countervailing factors, especially when the patentee practices his inventions.

Apple V, 809 F.3d at 647.

Here, the public interest is best served by protecting patent rights and entering a permanent injunction against PMC—particularly given that PMC's ability to compete in this market, as set forth above, would not have been possible absent infringement of the '629 Patent.

Because Plaintiffs have demonstrated an irreparable injury, an inadequate remedy at law, that the balance of the hardships favors them, and that the public interest would not be disserved by a permanent injunction, it is appropriate to enjoin the sale, manufacture, and distribution of the ColorSnap system in the United States.

F. Exceptionality and Attorney's Fees

1. Legal Standard

The Patent Act provides that courts “in exceptional cases may award reasonable attorney fees to the prevailing party.” 35 U.S.C. § 285. The Act therefore “imposes one and only one constraint on district courts’ discretion to award attorney’s fees in patent litigation: [t]he power is reserved for ‘exceptional’ cases.” *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 572 U.S. 545, 553 (2014).

Because this Court today enters a permanent injunction against PMC, Plaintiffs are prevailing parties under 35 U.S.C. § 285. *Raniere v. Microsoft Corp.*, 887 F.3d 1298, 1304 (Fed. Cir. 2018) (“[i]n determining whether a party is a prevailing party in patent litigation, we apply the general principle that to be a prevailing party, one must receive at least some relief on the merits, which alters the legal relationship of the parties. We clarified later that relief on the merits at least required that the party obtain a court order materially changing the legal relationship of the parties.”) (citations, alterations, and internal quotation marks omitted).

In *Octane Fitness*, the Supreme Court clarified that an exceptional case “is simply one that stands out from others with respect to the substantive strength of a party’s litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated.” *Octane Fitness*, 572 U.S. at 554. This determination, the Court held, is within “the case-by-case exercise of the district court’s discretion, considering the totality of the circumstances.” *Id.* The Court further explained, rejecting a narrower interpretation from the Federal Circuit, that under this standard “a district court may award fees in the rare case in which a party’s unreasonable conduct—while not necessarily independently sanctionable—is nonetheless so ‘exceptional’ as to justify an award of fees. *Id.* at 555.

2. Willfulness

The Federal Circuit has held that willfulness “may be a sufficient basis in a particular case for finding the case ‘exceptional’ for purposes of awarding attorney fees to the prevailing patent owner.” *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1340 (Fed Cir. 2004). The Federal Circuit also made clear that “a finding of willful infringement does not require a finding that a case is exceptional[.]” *Id.* (citing *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1461 (Fed. Cir. 1998)).

Indeed, many district courts have cited *Golight*, finding willfulness but nevertheless declining to deem those cases exceptional—particularly where other litigation conduct did not warrant such a finding. *See, e.g., Johnstech Int’l Corp. v. JF Microtechnology SDN BHD*, No. 3:14-cv-2864 (JD), 2018 WL 3730404, at *4–5 (N.D. Cal. Aug. 6, 2018) (“Here, even though the jury found willfulness, a number of factors counsel against finding that the case was exceptional the verdict alone does not indicate that, *ex ante*, JFM’s infringement position was so meritless as to stand out from the norm Consequently, the Court concludes that the case was not exceptional under Section 285. This serves the fundamental purpose of Section 285, which is to redress a ‘gross injustice’ and not just a few disappointing incidents.”) (citation omitted); *Metso Minerals, Inc. v. Powerscreen Int’l Distrib. Ltd.*, 833 F. Supp. 2d 333, 354 (E.D.N.Y. 2011) (“While the jury has found that the infringing conduct was willful, there are no other factors that would mark this case as exceptional, such as offensive litigation tactics, including vexatious or unjustified litigation or frivolous filings, being employed; or that the losing party litigated in bad faith Litigation by its nature is adversarial and often zealous advocacy can cross the fine line between fervor and offense. However, even taking all of the Plaintiff’s allegations of misconduct as true for purposes of this motion, Defendants’ counsel did

not act beyond the bounds of civility. There was nothing ‘truly unusual’ about the Defendants’ conduct so as to characterize this case as ‘exceptional.’”) (citations omitted).

The primary reason to award attorney’s fees is to address litigation conduct, and not pre-litigation conduct. *See Octane Fitness*, 572 U.S. at 554 (“We hold, then, that an ‘exceptional’ case is simply one that stands out from others with respect to the substantive strength of a party’s litigating position . . . or the unreasonable manner in which the case was litigated.”). Here, the Court need not make specific findings of fact or conclusions of law as to willful infringement.⁶ Even if PMC’s infringement was willful, this case does not “stand out” from others, as is required to award attorney’s fees. *See Octane Fitness*, 572 U.S. at 554.

3. Litigation Conduct

As the Supreme Court has recognized, a case that “stands out” is just that: “the rare case in which a party’s unreasonable conduct—while not necessarily independently sanctionable—is nonetheless so ‘exceptional’ as to justify an award of fees.” *Octane Fitness*, 572 U.S. at 555. That is not this case.

Plaintiffs argue that PMC’s decision to continue to fight this lawsuit, after the Claim Construction Order, was unreasonable. As Plaintiffs elaborated after the trial:

Following the Claim Construction Order, PMC attempted to relitigate claim construction on at least three occasions, including at trial. These attempts wasted both the Court’s and RMH’s time and resources. PMC also filed a Summary Judgment Motion it should have known could not be granted as there were numerous questions of fact, wasting more time and resources. Then PMC violated this Court’s Sequestration Order. Perhaps most egregious, PMC

⁶ Because Plaintiffs abandoned their claim for damages, it was not otherwise necessary for the Court to evaluate willfulness; the Court only permitted such evidence and arguments to be heard in the context of evaluating whether the case was exceptional. *See In Limine* Order at 16 (“Such broad discretion permits the Court to determine how best to discern whether this is indeed an exceptional case meriting an award of attorney’s fees. The Court therefore is free to decide that the question of defendant’s willfulness is relevant to that determination and, consistent with the Court’s obligations under Rule 1 “to secure the just, speedy, and inexpensive determination of every action and proceeding,” FED. R. CIV. P. 1, to find that such evidence should be presented at trial. PMC’s motion *in limine* to preclude evidence of willfulness from being raised at trial therefore is denied.”).

attempted to introduce evidence of a post claim construction legal opinion, after it had repeatedly asserted during discovery that no such opinion existed. PMC even attempted to introduce trial testimony regarding the substance of an email that (despite pending applicable discovery requests) it never produced in discovery or listed on a privileged log. RMH attempted to expedite the case in every way it could, only to have the case repeatedly delayed by PMC. When viewed in its totality, then, the litigation conduct of PMC has been unreasonable.

Pls.’ Post-Trial Brief ¶ 146. The Court disagrees.

The Court does not find that the filing of a summary judgment motion that PMC was entitled to make under the Federal Rules of Civil Procedure, nor its decision to litigate this case vigorously at trial, can be properly construed as unreasonable conduct. Similarly, the alleged attempts to introduce evidence arguably not produced in discovery, and the attempt to “re-litigate” the meaning of the terms in the Claim Construction Order, were issues that were raised and addressed at trial. Finally, the alleged violation of the sequestration order, as discussed above, was not sufficiently proven nor shown to have had a prejudicial effect on the trial and thus, does not make this case “so ‘exceptional’ as to justify an award of fees.” *Octane Fitness*, 572 U.S. at 555.

A patentee’s vigorous prosecution of its property rights or an accused infringer’s dogged defense of its product should not result in a finding that a case is exceptional as a matter of course. Because the Court does not find that PMC’s litigation conduct exceeded the bounds of reasonable conduct and that PMC did little more than engage in a vigorous defense of its position (albeit ultimately a losing one), the Court does not find that this case “stands out” such that it warrants the awarding of attorney’s fees.

The Court therefore declines to exercise its discretion to deem this case exceptional and will not award attorney’s fees to Plaintiffs.

VI. CONCLUSION

For the reasons discussed above, the Court finds that PMC directly infringed the '629 Patent, and that Plaintiffs are entitled to a permanent injunction.

Accordingly, the Court **ORDERS** that PMC be permanently enjoined from making, using, offering for sale, or selling in the United States the ColorSnap system, replacement parts to repair previously sold ColorSnap systems, or any colorable imitations thereof, until May 17, 2019—the date on which the '629 Patent will expire.

The Court does not, however, find this case exceptional and does not award Plaintiffs attorney's fees and costs.

The Clerk of the Court is directed to enter judgment for Plaintiffs and close this case.

The Court shall retain jurisdiction of this case for the purpose of enforcing the terms of the permanent injunction.

SO ORDERED at Bridgeport, Connecticut, this 18th day of December, 2018.

/s/ Victor A. Bolden
VICTOR A. BOLDEN
UNITED STATES DISTRICT JUDGE