

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

LOW TEMP INDUSTRIES, INC.)	
)	
Plaintiff,)	
)	
v.)	Case No. 4:20-cv-00686-MTS
)	
DUKE MANUFACTURING CO.,)	
)	
Defendant.)	

MEMORANDUM AND ORDER

Before the Court is Plaintiff Low Temp Industries, Inc.’s Motion for Preliminary Injunction, Doc. [10]. After reviewing the Complaint, Doc. [1], considering the instant Motion and all related papers and exhibits, and hearing oral argument on the issues, the Court finds that injunctive relief is warranted in this case, so it grants Plaintiff’s Motion.

I. BACKGROUND¹

At issue in this case is Plaintiff Low Temp Industries, Inc.’s (“LTI”) patented QuickSwitch technology. LTI is a third-generation, family-owned company located in Jonesboro, Georgia. It has around 150 employees and generates about \$30 million in revenue annually. LTI’s principal business relates to the design, manufacture, and sale of food-service products. LTI first introduced the QuickSwitch to the public at a food service show in 2007. The QuickSwitch is a multi-well food presentation module intended to hold containers of food. Its claim to fame is its ability to allow its food wells to switch from hot to cold to frozen in an hour or less, independent of the temperature of the wells surrounding it. In other words, one well can maintain food at a

¹ The Court draws these facts from the Complaint, Plaintiff’s Motion for Preliminary Injunction and the substantial number of filings by the parties related to that Motion, and the April 19, 2021 hearing the Court held on the Motion for Preliminary Injunction, see Doc. [117] (hearing transcript).

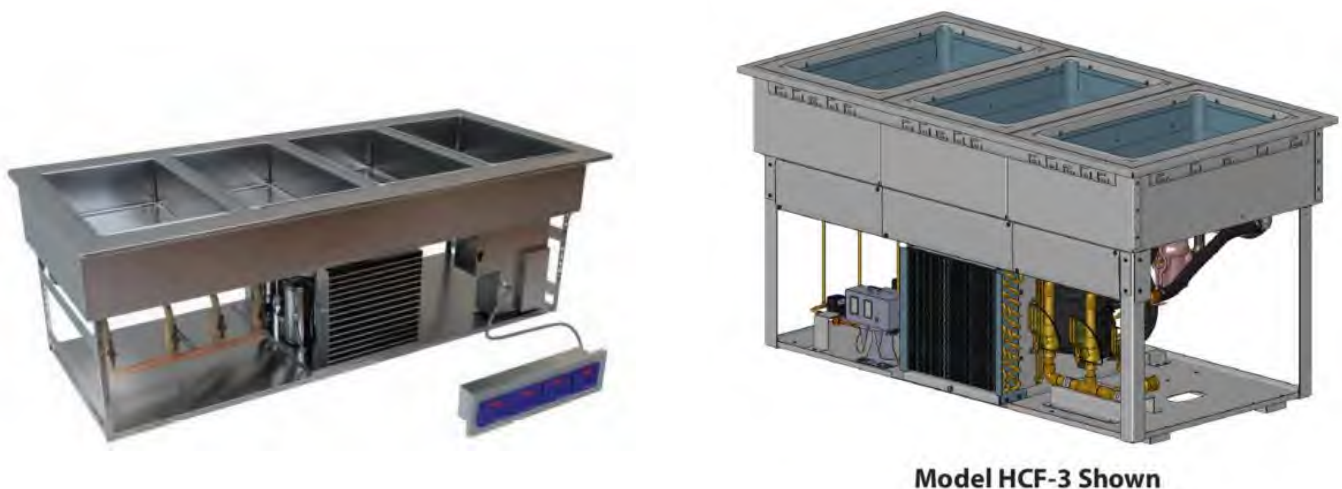
temperature substantially below ambient, even while the well next to it is heated to a temperate substantially above ambient. This technology, it appears, was the first of its kind when LTI introduced it in 2007. Docs. [11] at 11; [11-23] at 5. The QuickSwitch’s technology—aptly named “hot-cold-freeze,” or “HCF”—is particularly useful because it allows food that must be maintained at different temperatures, such as taco meat and cheese or lettuce, to be stored in different wells in the same unit. The QuickSwitch thus has practical, as well as sanitary, benefits. It is LTI’s flagship product, making up 15–18% of its annual revenue.

On June 16, 2008, LTI applied for a patent on the QuickSwitch technology. That patent—U.S. Patent No. 8,307,761 (the “’761 patent”)—issued on November 13, 2012. The Patent Office also granted two continuation patents on the QuickSwitch technology: U.S. Patent Nos. 8,661,970 (the “’970 patent”) and 8,859,253 (the “’253 patent”).² While LTI originally sold the QuickSwitch built into LTI counters, in 2012 it began selling independent QuickSwitch units that could be dropped into existing counters. Defendant Duke Manufacturing (“Duke”), which designs and manufactures commercial foodservice equipment, began purchasing through a distributor the drop-in version of the QuickSwitch for placement in Duke’s own counter systems. Duke, like LTI, is a privately-owned company, though it has an annual revenue of approximately \$130 million and “is a global leader in providing unique and innovative foodservice solutions.” Doc. [31-1] ¶ 4. It has over twenty different product lines, which include dozens of products, and it has “sales, service[,] and distribution facilities in the U.S.A., Europe, Latin America[,] and Asia.” Doc. [31] at 8. At the time of the hearing on the instant Motion, Duke had sold roughly forty of its own counter systems incorporating the QuickSwitch. Before Duke began selling its own HCF units in 2020, LTI was the only manufacturer to offer any HCF technology with the full heating, cooling,

² For ease, the Court will refer to all three of LTI’s QuickSwitch patents as the “Asserted Patents.”

and freezing capabilities of the QuickSwitch, which was also the only HCF product that met both the NSF-4 and NSF-7 food-service standards. Docs. [11] at 7–8, 7 n.2; [117] at (37:14–38:12).

Sometime in 2019, Duke’s President and COO, David Marvel, approached Ben Casey, the CEO and President of LTI, about buying the QuickSwitch directly from LTI rather than through a distributor. The parties discussed the possibility, but LTI ultimately declined to sell the QuickSwitch directly to Duke. In response, Marvel told Casey that Duke had been exploring the creation of its own HCF product, and in January 2020, Duke introduced its HotColdFreeze unit. A four-well unit of the QuickSwitch is displayed below on the left, while an image of a three-well version of Duke’s HCF is below on the right:



Docs. [11] at 11; [11-11] at 2. Duke has promoted its HCF product as an alternative to the QuickSwitch and markets to the same subset of customers as LTI. Duke’s product is the only HCF unit of comparable capabilities to the QuickSwitch and, like the QuickSwitch, is NSF-4 and NSF-7 certified. *See* Docs. [11-10] at 4; [11-12] at 6. Shortly after Duke’s introduction of its new product, LTI purchased one of Duke’s HCF units for purposes of inspection and comparison to the QuickSwitch. After concluding that Duke had copied the QuickSwitch, LTI brought this suit in

May 2020, claiming infringement of the Asserted Patents.

The same day it filed this suit, LTI sent Duke a cease and desist letter demanding primarily that Duke stop producing and selling the Duke HCF product. Doc. [98-1]. On June 23, 2020, Duke's counsel sent LTI a "confidential settlement communication" presenting various defenses to LTI's claims as well as a settlement offer: a per-unit royalty of \$200 for each one- or two-well HCF unit Duke sold and \$300 for each three- or four-well unit it sold. Doc. [34]. In that letter, Duke's counsel assured LTI that "Duke studied the situation thoroughly before creating its products, so as to avoid any valid LTI patent rights." *Id.* at 2. He further suggested that, because of Duke's "strong noninfringement and invalidity positions," LTI would have little "to gain in this matter by taking the risk of the loss of its patents, as opposed to entering into this business agreement." *Id.* at 3. After noting the potential costs of drawn-out litigation, Duke's counsel emphasized the detrimental effect litigation would have on LTI's business:

[I]f our clients are unable to agree on reasonable terms, Duke plans to invalidate the LTI patents at the USPTO. If Duke is forced to put the roadmap to invalidating the LTI patents into the public record (e.g., in a response to a motion for preliminary injunction, Answer and Counterclaims, and/or in IPR petitions), Duke cannot unring that bell. LTI will no longer enjoy the value of a license to Duke, because the world will know the patents are invalid, and others will be entering the marketplace with similar products.

Id. The letter concludes with the following ultimatum: "In these early negotiations, LTI has the opportunity to choose between receiving a reasonable royalty for Duke's sales or ending up with three invalidated and wasted patents, and many competitors entering the market." *Id.* The parties subsequently exchanged various counteroffers, culminating in Casey offering Marvel a "license [for] the patents on the QuickSwitch for \$1900 for sales of any unit with 2 or more wells." Docs. [33]; [97-2]; *see, e.g.*, Docs. [98-4]; [98-5]. The parties never ultimately reached a settlement or licensing agreement, and thus this litigation proceeds.

While the parties disagree about a great many things in this case, the evidentiary record is clear about at least one thing: Duke set out to copy the QuickSwitch. In an internal project proposal for a “Hot/Cold/Freeze Switchable Drop-in” revised June 29, 2018, a Duke employee wrote that the “target state” for the project was a “permission-to-play switchable, hot cold freeze unit . . . based on the LTI offering; NOT an innovation differentiated product. Targeting slightly lowering pricing than LTI assuming they will cut pricing in response to our product release.” Doc. [103-3] (emphasis in original); *see also* Doc. [103-2]. That same proposal notes as a “[c]onsequence of doing nothing” that Duke “will continue to cede revenue to LTI.” Doc. [103-3]. In both the original and updated proposals before the Court (the updated proposal contains a “revision date” of September 11, 2018), Duke acknowledged the risk that “[f]reeze capability in a switchable, single thermal engine ha[d] not been developed at Duke before,” meaning that the project would “involve a heavy amount of learning.” *Id.*; Doc. [103-2]. In response to a September 27, 2018 email from Duke vice president of marketing, Doug George, Jim Klimt—the “sponsor” of the HCF project—wrote “I would recommend we copy LTI but add the flush pan feature.” Docs. [103-5] at 1, 8; [103-2].

Duke’s intent to copy was reiterated in an “HCF Action Register,” an internal product-development document that was updated throughout the process of Duke’s creation of its HCF unit. The document contains various goals and completion dates for Duke’s HCF project. In an October 2018 version of the Action Register, this query is posed: “Goal to copy/fast follow rather than innovate?” Doc. [103-6] at 1. The “current action updates” column on the Register confirms that the goal is to “copy [and] fast follow.” *Id.* The document lists October 8 as the completion date affiliated with the “copy/fast follow” goal. *Id.* It also includes a “person responsible” for each goal, and it appears that Doug George’s initials are affiliated with the “copy/fast follow” goal,

consistent with Jim Klimt’s recommendation to George in September 2018 that Duke “copy LTI.” *See id.*; Doc. [103-5] at 1. In an updated version of the Action Register from May 2019, the goal “to copy/fast follow rather than innovate” reflects an updated “targeted complete date” of October 15³ and is marked “closed.” Doc. [103-7]. But another entry on the May 2019 version of the Action Register demonstrates even more clearly Duke’s intent to copy the QuickSwitch without regard for the validity of LTI’s patents. The task of “LTI patent review #8,307,761”—the ’761 patent, with which the QuickSwitch is marked—is noted as completed as of November 26.⁴ *See* Doc. [103-7]. The Action Register strongly suggests, therefore, that Duke made the decision to copy the QuickSwitch before reviewing the validity of the Asserted Patents. Furthermore, the Action Register notes that in December 2018 Duke specifically ordered QuickSwitch units for purposes of doing a “teardown and performance test” of the QuickSwitch. *Id.*

Further evidence of Duke’s intent to copy the QuickSwitch is found in Duke’s early marketing plans for its HCF unit. Contained in an “HCF Commercialization” document is an explanation that “[t]he HCF Development project is not a breakthrough development: we are duplicating the LTI QuickSwitch which has been in the marketplace for 7–8 years.” Doc. [103-1]. That document demonstrates the value Duke placed on its HCF development—it highlights that “the HCF is important . . . to the growth and positioning of Duke Servicing Systems,” as “HCF units will be replacing single function hot and cold wells.” *Id.* And in response to what appears to be a draft of an HCF comparison chart, Doug George wrote that “we basically copied LTI

³ Though the year is not listed, based on the other dates in the Action Register and the testimony at the hearing, it appears clear that this represents October 15, 2018. *See* Doc. [117] at (152:19–154:15).

⁴ The patent review was with a “John Sch.,” according to the Action Register, who is Duke’s in-house counsel. Docs. [103-7]; [117] at (165:18–167:8).

hardware.” Doc. [103-8] at 1–2. Finally, another document discussing remaining HCF priorities⁵ reaffirms that “[t]he intent of the project was to copy . . . LTI to allow interchangeability.” Doc. [103-9]. That same document reflects that Duke wanted its HCF product to replace “aging/unserviceable/unreliable LTI units,” providing another motive for copying the QuickSwitch. *See id.*

The evidence before the Court paints a clear picture of what happened here. Without first consulting its lawyers regarding the validity of the Asserted Patents, Duke decided to copy the QuickSwitch because it wanted a foothold in the HCF marketplace from which it could challenge LTI as the only market player. Duke then endeavored to find a post-hoc justification for its decision to copy the QuickSwitch and only then reviewed the Asserted Patents and determined they are invalid. Armed with those invalidity arguments and the specter of its newfound ability to compete with the QuickSwitch, Duke demanded that LTI license the QuickSwitch and counseled that LTI should accept Duke’s offer or instead deal with the ramifications—including the expense—of litigation. Though not alone dispositive of the issues before the Court, the substantial evidence of Duke’s intentional copying of the QuickSwitch sets the tone for the Court’s analysis.

II. LEGAL STANDARD FOR INJUNCTIVE RELIEF

“A preliminary injunction is an extraordinary remedy.” *Watkins Inc. v. Lewis*, 346 F.3d 841, 844 (8th Cir. 2003). Its function is “to preserve the status quo pending a determination of the action on the merits.” *Cont’l Serv. Grp., Inc. v. United States*, 722 F. App’x 986, 994 (Fed. Cir. 2018) (quoting *Litton Sys., Inc. v. Sundstrand Corp.*, 750 F.2d 952, 961 (Fed. Cir. 1984)). The party seeking injunctive relief bears the burden of establishing the necessity of such relief. *Roudachevski v. All-Am. Care Ctrs., Inc.*, 648 F.3d 701, 705 (8th Cir. 2011); *Morningside Church*,

⁵ No date appears on the document, though counsel for LTI stated at the hearing that this “HCF priorities to complete” document was dated April 2020. Doc. [117] at (155:23–156:10).

Inc. v. Rutledge, 471 F. Supp. 3d 921, 924 (W.D. Mo. 2020). In deciding whether to issue a preliminary injunction, the Court must consider the following four factors: (1) the threat of irreparable harm to the movant; (2) the balance between that harm and the harm that granting the injunction will inflict on other parties; (3) the probability that the movant will prevail on the merits; and (4) the public interest. *Dataphase Sys., Inc. v. C L Sys., Inc.*, 640 F.2d 109, 113 (8th Cir. 1981) (en banc); *City of Berkeley v. Ferguson-Florissant Sch. Dist.*, No. 4:19-cv-168-RLW, 2019 WL 1558487, at *2 (E.D. Mo. Apr. 10, 2019). “While ‘no single factor is determinative,’ the probability of success factor is the most significant.” *Home Instead, Inc. v. Florance*, 721 F.3d 494, 497 (8th Cir. 2013) (quoting *Dataphase*, 640 F.2d at 113 (internal citations omitted)). The Court will therefore begin its analysis there.

III. DISCUSSION

A. Likelihood of Success on the Merits

To demonstrate a likelihood of success on the merits, LTI must show that (1) it will likely show that Duke’s HCF infringes any one of the Asserted Patents, and (2) its infringement claims “will likely withstand [Duke’s] challenges to the validity and enforceability of the [Asserted Patents].” *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1350–51 (Fed. Cir. 2001). “The Court should not grant a preliminary injunction if [Duke] ‘raises a substantial question concerning either infringement or validity.’” *Waters Corp. v. Agilent Techs.*, 410 F. Supp. 3d 702, 708 (D. Del. 2019) (quoting *Amazon.com*, 239 F.3d at 1350–51). Here, because LTI has asserted infringement of multiple claims of the Asserted Patents, it “must demonstrate that it will likely prove infringement of one or more claims of the [Asserted Patents], and that at least one of those same allegedly infringed claims will also likely withstand the validity challenges presented by

[Duke].” *Id.* at 1351. The Court will begin its discussion with LTI’s allegations of infringement before addressing Duke’s validity challenges to the Asserted Patents.

1. Infringement

“To prove an accused product literally infringes the patent in suit, the product must contain each and every limitation of the asserted claim(s).” *Trebro Mfg. v. Firefly Equip.*, 748 F.3d 1159, 1166 (Fed. Cir. 2014); *Waters*, 410 F. Supp. 3d at 709 (“Literal infringement of a claim exists when every limitation recited in the claim is found in the accused device, i.e., when the properly construed claim reads on the accused device exactly.” (quoting *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 532 (Fed. Cir. 1996))). Courts engage in a two-step inquiry to assess whether infringement has occurred: first, the Court determines the scope of the relevant claims, and second, the Court then must compare to the accused product to the claims as it has construed them. *Amazon.com*, 239 F.3d at 1351; *Waters*, 410 F. Supp. 3d at 708. It is well established that, for purposes of interpreting a claim, the patent’s intrinsic evidence—its claims, specification, and prosecution history—is the most reliable indicator of a claim’s meaning. *See Vitronics Corp. v. Conceptor, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996); *Pergo, Inc. v. Faus Grp., Inc.*, 401 F. Supp. 2d 515, 521 (E.D.N.C. 2005). For that reason, the Court must begin with the language of the claims, and, “[b]eyond that, if [the Court] needs evidence of the intended meaning, it should first look to . . . the context of the claims, the patent’s specification, and the prosecution history.” *EcoNova Inc. v. DPS Utah*, No. 1:12-cv-174-TC, 2012 WL 5944257, at *4 (D. Utah Nov. 28, 2012). The Court should resort to extrinsic evidence, such as expert testimony or dictionary definitions, “[o]nly if there [is] still some genuine ambiguity in the claims, after consideration of all available intrinsic evidence.” *Vitronics*, 90 F.3d at 1584; *EcoNova*, 2012 WL 5944257, at *4 (“If yet more evidence is needed, the court may rely on extrinsic evidence, such as expert and

inventor testimony, dictionaries, and treatises. However, the court uses extrinsic evidence with caution, and will not allow it to undermine the intrinsic evidence.” (citations omitted)).

LTI asserts that Duke infringes claims 3, 4, 9–11, 13, 15, and 16 of the ’761 patent; claims 2, 3, 6–9, 11–13, 15–17, 19, 21, 22, 25, and 26 of the ’970 patent; and claims 2, 3, 11, 12, and 14–19 of the ’253 patent. Doc. [11] at 18.⁶ Duke, for purposes of the instant Motion, presented a handful of claim construction issues pertaining to those asserted claims. But the Court will address only one of those disputed constructions because it is alone sufficient to show that LTI is likely to prove infringement. *See EcoNova*, 2012 WL 5944257, at *5 (“Although the parties presented five sample claims for review at this stage of the litigation, the court need only address two of them here because a construction of the disputed terms in claim 13 of the ’473 Patent and claim 1 of the ’441 Patent show that EcoNova is likely to prove infringement.”); *Pergo*, 401 F. Supp. 2d at 521 (“[T]he court may make the determination of likelihood of success on the merits based on a tentative claims construction and ‘exercise its discretion to interpret the claims at a time when the parties have presented a full picture of the claimed invention and prior art.’” (quoting *Sofamor Danek Grp., Inc. v. DePuy-Motech, Inc.*, 74 F.3d 1216, 1221 (Fed. Cir. 1996))). Specifically, as detailed below, the Court disagrees with Duke’s construction of the phrase “insulative air gap,” which is sufficient for the Court to find that LTI is likely to show Duke’s HCF product infringes the ’761 and ’970 patents.

a. “Insulative Air Gaps” Within the Context of the Asserted Claims Means “A Physical Space Creating Separation for Purposes of Insulation”

Claim 1 of the ’761 patent, on which many of the other asserted claims depend, forms the basis of the relevant dispute here (with emphasis added to highlight the disputed terms):

⁶ For purposes of page citations to papers in the record, the Court uses the document’s PDF page number rather than the document’s internal page numbering.

1. A food presentation module generally immobile in use, comprising:
 - a. a frame;
 - b. adjacent first and second wells for receiving containers of bulk food, each well being individually insulated and thermally isolated from an adjacent well via interior walls and exterior walls forming *insulative air gaps* therebetween, the wells being uncovered in use so as to expose food received therein to the ambient environment; and
 - c. a temperature-control system for controlling temperatures of the first and second wells independently, the temperature-control system configured to allow food received in either the first or the second well to be refrigerated to a temperature substantially below ambient, while food received in the other of the first or the second well may be heated to a temperature substantially above ambient, and wherein temperatures of each well may be switched between heating and refrigerating, regardless of the temperature of any other well such that both wells may be refrigerated, both wells may be heated, or the first or second well may be refrigerated while the other of the first or second well is heated.

Doc. [11-7] col. 5 ll. 22–45 (emphasis added). Claims 3, 4, 9, 10, and 11 of the '761 patent depend from claim 1. Claim 12, from which asserted claims 13 and 15 depend, contains the same “insulative air gap” language as claim 1. *Id.* col. 6 ll. 16–35. Claim 16, the final claim LTI asserts is infringed of the '761 patent, likewise contains virtually identical language to claim 1 regarding an “insulative air gap.” *Id.* col. 6 ll. 48–61. With respect to asserted claims 3, 4, 9, 10, 13, 15, and

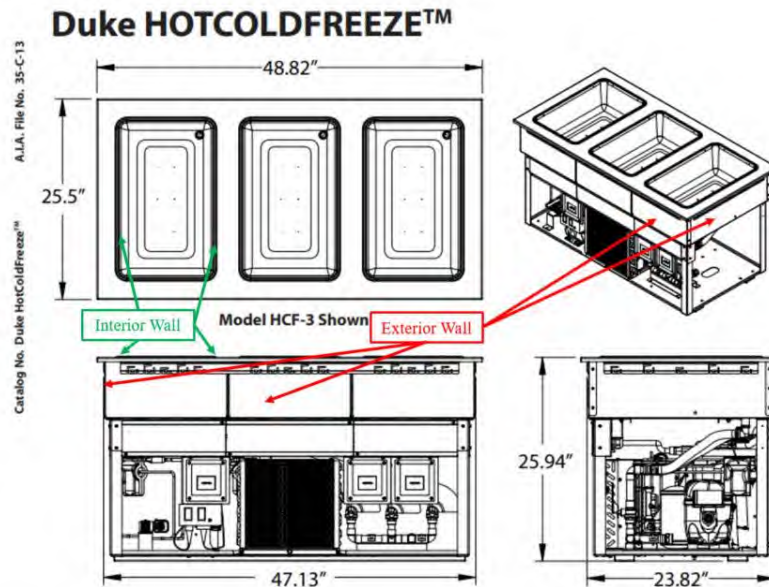
16,⁷ Duke’s only noninfringement argument before the Court is that its HCF unit lacks an “air gap.” *See* Docs. [31] at 16–18; [31-3] at 19–21, 223–228; [88] at 15–16. Because the phrase “insulative air gap” appears in effectively identical contexts in each of claims 1, 12, and 16, the Court will construe the phrase to mean the same thing in each of those claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (“Because claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims.”).

Duke insists that its HCF cannot infringe the claims of the ’761 patent because “the relevant locations between the inner and outer walls of the Duke product are filled with insulating foam—there is no gap.” Doc. [31] at 16 (emphasis in original). The Court, according to Duke, should construe the phrase “air gap” in the asserted claims as “unambiguously requir[ing] an unfilled space . . . between interior and exterior walls that is occupied by air.” Doc. [88] at 9, 15. Duke emphasizes that “gap” means “an empty space,” thus precluding the conclusion that its product—which contains foam insulation in the space between its interior and exterior walls—infringes. *Id.* at 10, 15.

The Court is unpersuaded by Duke’s construction of “insulative air gap” as those words appear in claims 1, 12, and 16 of the ’761 patent. At this preliminary stage, Duke’s interpretation of that phrase is inconsistent with the intrinsic evidence before the Court. The phrase “insulative air gap” must be read in the context of the words surrounding it. *Phillips*, 415 F.3d at 1313–14. Reference to that context reveals that the negative limitation Duke urges—that an “insulative air

⁷ Claim 11 recites: “A module according to claim 1, in which the first and second wells are spaced by a distance of only approximately three inches.” Doc. [11-7] col. 6 ll. 13–15. Duke argues that its HCF product does not infringe claim 11 because the wells in that HCF product “are not spaced by a distance of approximately only three inches.” Doc. [31-1] at 225–27 (Homan declaration). The Court need not address this issue since, as it will discuss, Duke’s HCF infringes the other asserted claims in the ’761 patent.

gap” must consist of only empty space—finds no support from the plain language of the ’761 patent. See *EcoNova*, 2012 WL 5944257, at *4 (“Claims terms ‘are generally given their ordinary and customary meaning,’ which is ‘the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.’” (quoting *Phillips*, 415 F.3d at 1312–13)). Each of claims 1 and 12 states that the module’s wells are “individually insulated and thermally isolated from an adjacent well via interior walls and exterior walls forming insulative air gaps therebetween.”⁸ Doc. [11-7] col. 5 ll. 27–30, col. 6 ll. 21–24. Claim 16 likewise explains that the “insulative air gap” is formed by “vertically-extending interior walls spaced a distance from corresponding vertically-extending interior walls . . . such that each well is individually insulated and thermally isolated from adjacent wells.” *Id.* col. 6 ll. 51–56. The plain language of the claims, then, suggests that the “insulative air gaps” are necessarily formed by the construction of the module described by the claims. For reference, the following is a diagram (annotated by LTI’s expert, Dr. Mayor) of Duke’s three-well HCF unit:



⁸ The final word of the language quoted here is “therebetween” in claim 1 and “between” in claim 12. The Court views this as a distinction without difference for purposes of its claim construction here.

Doc. [11-2] ¶ 36. As Duke acknowledges, by the very nature of the structure described by the claims, the positioning of the interior and exterior walls creates a space between those walls. *See* Doc. [88] at 9 (insulative air gap is “formed by . . . the interior [] and exterior walls”). Those spaces are responsible, under the claims, for ensuring that the wells are “individually insulated and thermally isolated.” Thus, the claims contemplate that there will be space between the wells for purposes of insulating the wells from one another: the “insulative air gap.” This space ensures separation between the wells, which is important to the wells’ ability to switch temperatures independent of one another.

To infringe, Duke contends, that space must remain empty. But the claims do not include any language requiring that the “insulative air gap” remain “unfilled” or that it be purely empty space. Duke is, in effect, asking the Court to read into the claims a limitation that is neither suggested nor required by the words of the claims themselves. Reading only the language of the claims, the Court is unconvinced that a person skilled in the art would find that the word “air,” by itself, means that there can be nothing else in the space between the interior and exterior walls of the module. *Cf. Omega Engineering, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1322 (Fed. Cir. 2003) (“This additional negative limitation finds no anchor in the explicit claim language. The express text of the claims does not prohibit the laser beam from striking inside the energy zone. The claim’s wording only calls for the laser beam to ‘strike the periphery of the energy zone for visibly outlining said energy zone.’” (citation omitted)). Simply put, on the evidence before it, it is not clear to the Court that the addition of some object or material into the space described by the claims renders the space no longer an “insulative air gap.” Whether or not there is foam in the gap, it remains a space providing separation between the walls, performing the insulative and thermally

isolative function described by claims 1, 12, and 16 of the '761 patent. The wells, by virtue of the space, are separated from one another and unconnected—and thus the space serves its insulative purpose—regardless of whether the space includes only air or also includes foam.

While the claim language is the most important factor for claim construction, the patent specification is another form of intrinsic evidence that can shed light on the meaning of a disputed term. *Phillips*, 415 F.3d at 1315 (“The claims, of course, do not stand alone. Rather, they are part of ‘a fully integrated written instrument’ For that reason, claims ‘must be read in view of the specification, of which they are a part.’” (citations omitted) (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978–79 (Fed. Cir. 1995))). “[T]he [written description] ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Howmedica Osteonics Corp. v. Zimmer, Inc.*, 822 F.3d 1312, 1321 (Fed. Cir. 2016) (quoting *Phillips*, 415 F.3d at 1315); *Immunex Corp. v. Sanofi-Aventis U.S. LLC*, 977 F.3d 1212, 1218 (Fed. Cir. 2020). The summary of the '761 patent further convinces the Court that “insulative air gap” as it is used in that patent means “a physical space creating separation between wells for purposes of insulation.” The summary explains that the modules of the patent “resolve the taco-presentation type problem . . . , as adjacent wells of a module may contain, respectively, ambient-temperature items . . . , heated items . . . , and refrigerated items.” Doc. [11-7] col. 2 ll. 24–28. It further notes “[a]dvances in thermal insulation permits as little as three inches *of spacing to exist between wells*, . . . while maintaining compliance with” the NSF-4 and NSF-7 sanitary standards. *Id.* col. 2 ll. 33–37 (emphasis added). The summary thus suggests that, though the space may be small, it is the *spacing* and separation between wells that is important to the wells’ insulation and ability to operate at greatly varying temperatures. The addition of foam or some other material to that space does not transform the

space into something else or remove the separation it creates between wells. The summary, as with the claims themselves, neither requires an insulative material inside the “insulative air gaps” nor prohibits the presence of such material. The ’761 patent’s description also comments that “air gaps . . . help reduce thermal leakage . . . from a well . . . into adjacent wells.” *Id.* col. 4 ll. 34–36. The description does not suggest that the “air gap” must be empty or unfilled to serve the purpose of reducing thermal leakage. There is thus no basis to imply a requirement that the “insulative air gaps” be devoid of anything other than air. Considering the plain language of the claims and the patent as a whole, see *Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed. Cir. 2001), the Court finds a person skilled in the art would read “insulative air gap” as being a “a physical space creating separation for purposes of insulation.” Because it finds the intrinsic evidence of the patent is sufficient to construe this limitation, the Court need not reference any extrinsic evidence.⁹

Relevant too is Duke’s noninfringement argument as to asserted claim 8 of the ’970 patent. For purposes of the instant Motion, Defendant has provided only one argument of noninfringement with respect to that claim.¹⁰ The claim states:

8. A module according to claim 7 in which each of the first and second wells further comprises a plurality of generally vertically-extending exterior walls spaced from

⁹ The Court finds that the prosecution history additionally suggests that an “insulative air gap,” as written in the ’761 patent, can include foam. The patent examiner twice rejected claim 10 of the application that became the ’761 patent because prior art reference Monroe taught exterior walls forming “insulated interior spaces.” Docs. [31-4] at 76, 115; [103] at 25–26. Monroe disclosed foam-filled partitions. Docs. [31-3] at 18; [103] at 25. In response, the applicant *did not* argue that its claim 10 was distinguishable from Monroe because Monroe’s “insulated interior spaces” contained foam, while the applicant’s “insulative air gaps” contained only air. The applicant instead distinguished from Monroe on other grounds and even conceded the “Monroe channels” might be considered “insulative air gaps.” *See* Doc. [31-4] at 50–53, 100–01; [117] at (112:19–115:9). This suggests that both the applicant and examiner understood that an “insulative air gap” might include foam. *See Biogen Idec, Inc. v. GlaxoSmithKline LLC*, 713 F.3d 1090, 1095–1096 (Fed. Cir. 2013).

¹⁰ Additionally, it appears that Duke’s only noninfringement position before the Court with respect to asserted claims 2, 7, 11–13, 15–17, 19, 21, 22, 25, and 26 of the ’970 patent is that those claims are invalid. *See* Docs. [31] at 21; [31-3] at 228. However, for purposes of the Motion for Preliminary Injunction, the Court will focus on only claim 8 of the ’970 patent.

the plurality of vertically-extending walls *so as to form insulative gaps therebetween*.

Doc. [11-8] col. 6 ll. 1–5 (emphasis added). As with the '761 patent claims and for the same reasons, Duke and its expert take issue only with the language “insulative gap.” *See* Doc. [31-3] at 23–24, 231. As Duke’s expert, Dr. Homan, points out, the Asserted Patents “share nearly identical specifications.” Doc. [88-14] ¶ 16 n.1. The parties seem to agree that the phrase “insulative air gaps” in the '761 patent should be interpreted the same as the phrase “insulative gaps” in claim 8 of the '970 patent. *See id.* ¶ 37; Doc. [117] at (96:21–97:9), (117:3–118:3). Thus, as in the '761 patent, the Court will construe “insulative gaps” in claim 8 of the '970 patent to mean “a physical space creating separation for purposes of insulation.”

Applying that construction of “insulative air gap,” the Court finds, on consideration of all the evidence before it, that Duke’s HCF product likely contains each and every limitation of claims 3, 4, 9, 10, 13, 15, and 16 of the '761 patent as well as claim 8 of the '970 patent.¹¹ Duke has therefore failed to raise a substantial question regarding infringement, *Amazon.com*, 239 F.3d at 1350–51, and the Court holds LTI is likely to succeed on the merits of its infringement claims with respect to the asserted claims above. Having made that determination, the Court now turns to Duke’s arguments that the Asserted Patents are invalid.

2. Validity

As detailed above, the Court finds that Duke’s HCF product infringes claims 3, 4, 9, 10, 13, 15, and 16 of the '761 patent and claim 8 of the '970 patent (the “infringed claims”). The

¹¹ The “insulative air gap” is the only contested limitation in claims 3, 4, 9, 10, 13, 15, and 16 of the '761 patent. Similarly, “insulative gap” in claim 8 of the '970 patent is the only contested limitation in that claim. The Court is satisfied, on its review of all the evidence and arguments submitted by the parties, that Duke’s HCF product contains all the limitations in each of those claims. *See Waters*, 410 F. Supp. 3d at 710 (“This is the only contested limitation of claim 1 or claim 6. Thus, the Court finds the Plaintiffs have demonstrated that they are likely to succeed in proving infringement of claims 1 and 6 . . .”).

Court thus focuses its validity analysis on those claims only, because that is all that is required to find that LTI is likely to succeed on the merits here. *Amazon.com*, 239 F.3d at 1351 (“[I]n cases involving multiple patent claims, to demonstrate a likelihood of success on the merits, the patentee must demonstrate that it will likely prove infringement of one or more claims of the patents-in-suit, and that at least one of those same allegedly infringed claims will also likely withstand the validity challenges presented by the accused infringer.”).

Patents are presumed valid, and the party asserting invalidity bears the burden of establishing that the patent is not valid. 35 U.S.C. § 282(a); see *Titan Tire Corp. v. Case New Holland, Inc.*, 566 F.3d 1372, 1377 (Fed. Cir. 2009) (noting the validity presumption applies at the preliminary injunction stage). In light of that presumption, the Court “must determine whether it is more likely than not that [Duke] will be able to prove at trial, by clear and convincing evidence,” that the Asserted Patents are invalid. *Id.* at 1379–80. Duke argues that the Asserted Patents are invalid both as anticipated and obvious. But, as discussed below, the Court finds that Duke has failed to establish that it is likely to show, by clear and convincing evidence, that any of the infringed claims are invalid.

a. Anticipation

“A prior art document,” such as an issued patent, “may anticipate a claim if it describes every element of the claimed invention, either expressly or inherently.” *Nobel Biocare Servs AG v. Intradent USA, Inc.*, 903 F.3d 1365, 1375 (Fed. Cir. 2018). Though Duke contends that the Asserted Patents are anticipated by various prior art references, Duke’s anticipation arguments fail, as none of its prior art references contains “each and every element . . . arranged as claimed” in the infringed claims. See *ATEN Int’l Co. v. Uniclass Tech. Co.*, 932 F.3d 1364, 1368 (Fed. Cir. 2019). While Duke argues that the Finegan patent (PCT Pub. No. WO 00/71950, Doc. [31-10])

anticipates the Asserted Patents, Duke’s expert, Dr. Homan, relied on Finegan in combination with other prior art references or made “obvious modifications to Finegan” to argue the infringed claims are invalid. *Compare* Doc. [31] at 31, *with* Doc. [31-3] at 65–66 (“Finegan discloses the vast majority of claimed features. The minor other features . . . are found in secondary references closely related to Finegan and obvious modifications to Finegan.”). Additionally, Duke focuses its attention on what it calls LTI’s three “points of novelty” rather than each of the limitations and elements of the infringed claims.¹² *See* Docs. [31] at 23 (“Prof. Homan’s Declaration details a variety of prior art that shows all three of LTI’s alleged points of novelty are meritless because these features were already disclosed in prior art.”); [117] at (204:21–23). For those reasons, Duke’s validity challenge at this stage in the litigation is best styled as one sounding in obviousness, not anticipation. *See* Robert A. Matthews, Jr., Annotated Patent Digest § 18:43 (“If it is necessary to rely on additional items of prior art to combine with a first item of prior art to disclose all the limitations of a claimed invention then the claimed invention may be rejected for being obvious under § 103, but it cannot be rejected for being anticipated under § 102.”); *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008) (“[D]ifferences between the prior art reference and a claimed invention, however slight, invoke the question of obviousness, not anticipation.”). After reviewing the prior art cited by Duke, the reports of both parties’ experts, and the parties’ arguments, the Court finds that none of those prior art references, including Finegan, disclose “all of the limitations arranged or combined in the same way as recited in” the infringed claims. *See VeriSign*, 545 F.3d at 1371. Duke has thus failed, at this point in the

¹² These “points of novelty” are based on what Duke identified as the “only three capabilities that [LTI] claims are absent from Duke’s asserted prior art.” Doc. [31] at 23. But this misunderstands the focus of an anticipation analysis; to anticipate, a *single* piece of prior art must contain *every* limitation of the asserted claim, arranged in the *same way* as the asserted claim. Robert A. Matthews, Jr., Annotated Patent Digest § 17:37 (Basic test of anticipation). Duke’s focus on the “points of novelty” thus misses the mark.

litigation, to demonstrate the Asserted Patents were likely anticipated by the prior art, and it accordingly has not raised a substantial question as to the validity of the infringed claims on the basis of 35 U.S.C. § 102. *See id.*; *TF3 Ltd. v. Tre Milano, LLC*, 894 F.3d 1366, 1374 (Fed. Cir. 2018) (“Claims cannot be ‘anticipated’ by devices that are not the same.”). As such, as to the issue of anticipation, LTI is likely to succeed on the merits.

b. Obviousness

“Under 35 U.S.C. § 103, a claimed invention is unpatentable if ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious’ to one of ordinary skill in the art *at the time the invention was made.*” *Smiths Indus. Med. Sys. v. Vital Signs, Inc.*, 183 F.3d 1347, 1353 (Fed. Cir. 1999) (quoting 35 U.S.C. § 103) (emphasis added). Duke insists that all the claims of the Asserted Patents are invalid under § 103, reasoning that Finegan, either modified or (as a primary reference) in combination with several other prior art references, makes the claims obvious. Docs. [31] at 31; [31-3] at 65–66; [88] at 28–30. LTI counters that Finegan is different from the Asserted Patents in several respects, as it is “missing key elements” of the asserted claims and is “directed to an entirely different purpose, offering an entirely different solution, using entirely different structures.” Doc. [48] at 28–32. Because of those substantial differences, LTI asserts Duke has failed to provide any motivation for a person of skill in the art to modify the prior art to achieve the Asserted Patents, and it further argues that Duke and Dr. Homan engage in improper hindsight reasoning. *Id.* at 31–33. Finally, LTI urges the Court to take note of “the substantial objective indicia of non-obviousness here.” *Id.* at 33.

After carefully considering all the evidence before it, the Court finds that the infringed claims are not obvious for three overarching reasons. First, there are significant and meaningful

differences between the Asserted Patents and Finegan.¹³ Second, the clear evidence of copying and commercial success serves as persuasive, objective evidence of nonobviousness. And third, Duke improperly relied on the statements of Howell Ben Shackelford, the inventor of the Asserted Patents, in arguing a person skilled in the art would have the motivation to create the Asserted Patents. The Court discusses each of these reasons in detail below, beginning with the differences between Finegan and the Asserted Patents.

i. Finegan Is Meaningfully Different from the Asserted Patents, as Reflected by Finegan Itself and the Prosecution of the '253 Patent

The Court's own review of the Finegan patent—on which Duke relies in arguing the infringed claims are invalid, see Doc. [31-3] at 65–66—leads the Court to conclude that Finegan is different in meaningful and relevant respects from the invention described by the infringed claims. *See Wyers v. Master Lock Co.*, 616 F.3d 1231, 1239 (Fed. Cir. 2010) (explaining “that the legal determination of obviousness may include recourse to logic, judgment, and common sense”). Because those differences undermine Duke's assertion that the infringed claims would have been obvious based on Finegan to one skilled in the art, Duke's obviousness argument fails.

Beginning with its background section, the Finegan patent notes the “need to provide for a food service table or buffet that employs a shallow pan for use in both hot and cold service conditions *while still providing sufficient frosting of the top surface*.” Doc. [31-10] col. 2 ll. 10–13 (emphasis added). The summary and detailed description of the invention reiterate an object of providing a food-service display that includes “desirable frosting and heating of foods” and that “it is desirable to have the pan top surface . . . covered with frost during display and storage of cold

¹³ Though Duke has provided numerous combinations of prior art in support of its obviousness argument, the Court will focus on Finegan, since that is the only reference necessary for the Court's analysis of validity of the infringed claims.

foods.” *Id.* col. 2 ll. 18–19, col. 5 ll. 18–20. The summary also describes a single pan for receiving a food tray. *Id.* col. 2 ll. 21–24. In the interest of providing frosting of the surface and side walls of the unit, the description discloses cooling coils around the outside wall of the pan that are “engulfed within a thermally conductive material.” *Id.* col. 5 ll. 23–28. The patent consistently emphasizes the objective of providing “effective and efficient frosting” of the pan surface and describes the features of the invention in pursuit of that aim. *See, e.g., id.* col. 6 ll. 1–6. Furthermore, the detailed description explains that the unit described in the patent “is provided for maintaining food *at a desired temperature*” and that “the apparatus . . . is expected to be used *in either a hot mode operation or a cold mode operation.*” *Id.* col. 5 ll. 12–13, col. 8 ll. 5–7 (emphasis added). And the heating of the Finegan unit is achieved “using a hot water bath,” not dry heat like the Asserted Patents. *Id.* col. 9 ll. 23–26. Because of the use of a hot water bath for heating purposes, it appears clear that Finegan does not contemplate an invention with the ability to heat one tray of food in the unit’s pan while at the same time cooling another tray in that pan. *See* Doc. [48-3] ¶¶ 63–64 (Mayor declaration). Finegan’s inclusion of thermally conductive material supports that conclusion, even though the patent description also includes the use of thermally insulating material. *See* Doc. 31-10 col. 5 ll. 28–30; Doc. [48-3] ¶¶ 57–61 (Mayor declaration) (“[W]hile having a ‘thermally conductive material’ to ensure a frosted outer flange and . . . side walls is advantageous for cooling . . . and frosting of the pans, it is disadvantageous for thermal isolation of a pan . . .”). Moreover, the Court agrees with Dr. Mayor that Duke misinterprets Figure 7 of Finegan as describing two immediately adjacent pans within a single module that can be maintained at different temperatures. *See* Doc. [48-3] ¶¶ 66–67. That interpretation is inconsistent with Finegan’s description of a single-pan apparatus operating in “either a hot mode . . . or a cold mode,” ignores that Figure 7 is a schematic without any description of distance

between the pans, and fails to account for the thermal conductivity creating frosting desired in the Finegan patent. *See id.* ¶¶ 66–74. Finegan does not, the Court finds, disclose or teach two thermally isolated and insulated “pans” within a single module that can be operated at different temperatures simultaneously. Nor would it be obvious to modify Finegan to arrive at the Asserted Patents, given Finegan’s incorporation of thermally conductive material, emphasis on frosting, and its description of a single-temperature, one-pan module. Having reviewed the Finegan patent as a whole, *Netword*, 242 F.3d at 1352, the Court is convinced that the differences between Finegan and the Asserted Patents in purpose, design, and function are significant enough that Finegan did not make the infringed claims obvious at the time of their creation.

The prosecution history of the ’253 patent lends support to the Court’s conclusion that Finegan is different than and did not make obvious the Asserted Patents. Though the patent examiner did not consider Finegan during the prosecutions of the ’761 or ’970 patent, she did consider it during the prosecution of the ’253 patent. Doc. [117] at (221:24–222:22). Even after giving full consideration to Finegan, she allowed the ’253 patent for the same reason she allowed the first two of the Asserted Patents: “[T]he prior art [did] not teach a control system wherein the temperature of each well may be switched between heating and cooling, regardless of the temperature of any other well and wherein each well is individually insulated and thermally isolated from an adjacent well.” *Compare* Doc. [31-15] at 14 (’253 prosecution), *with* Doc. [31-4] at 18 (’761 patent) *and* Doc. [31-13] at 51–52 (’970 patent). Thus, the patent examiner concluded, as the Court does here, that Finegan does not disclose or make obvious thermally isolated adjacent wells that can be independently heated or cooled. And, “although the standard of proof does not depart from that of clear and convincing evidence, a party challenging validity shoulders an enhanced burden if the invalidity argument relies on the same prior art considered

during examination by the U.S. Patent and Trademark Office.” *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1367 (Fed. Cir. 2011). Having so concluded, the Court has no basis for finding that Duke has raised a substantial question as to the validity of the infringed claims.

The Court’s conclusion on this point is dispositive, since Duke’s only argument as to the invalidity of claims 3, 9, 10, 13, 15, and 16 of the ’761 patent and claim 8 of the ’970 patent—which the Court found are infringed by Duke’s HCF unit—is that Finegan alone makes obvious the claims.¹⁴ *See* Doc. [31-3] at 65; *Amazon.com*, 239 F.3d at 1351. The Court therefore concludes that LTI has demonstrated it is likely to show infringement of at least claims 3, 9, 10, 13, 15, and 16 of the ’761 patent and claim 8 of the ’970 patent and that Duke has failed to meet its burden of raising a substantial question as to the validity of those claims. But even if the differences between Finegan and the Asserted Patents made obviousness a close call, the robust objective evidence of nonobviousness, to which the Court now turns, serves as further foundation for the Court’s determination that the Asserted Patents were not obvious.

ii. Duke’s Intentional Copying and the Commercial Success of the QuickSwitch Reflect that the Asserted Patents Were Not Obvious

The Court is compelled by the objective evidence of nonobviousness LTI has presented. *See Smith Indus. Med. Sys.*, 183 F.3d at 1354 (listing “secondary considerations of nonobviousness” as a factor in assessing whether an invention is obvious). Such secondary considerations, such as evidence of copying or commercial success, “play an important role as a guard against the statutorily proscribed hindsight reasoning in the obviousness analysis.” *WBIP*,

¹⁴ Duke’s reliance in its obviousness argument on prior art reference Safyan for claims 3, 4, 9, 10, 13, 15, and 16 of the ’761 patent and claim 8 of the ’970 patent is only relevant to the extent the Court agreed with Duke that the “insulative air gaps” incorporated into that claim cannot include foam. *See* Doc. [31-3] at 69–77, 82–83, 87–103, 120–122. Since the Court disagreed with that interpretation, Safyan is not necessary to Duke’s obviousness argument with respect to those claims.

LLC v. Kohler Co., 829 F.3d 1317, 1328 (Fed. Cir. 2016). While Duke seeks to minimize the import of that evidence here, “evidence of secondary considerations may often be the most probative and cogent evidence in the record.” *Id.* (quoting *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983)). And such evidence “must be considered in *every* case.” *Id.* To reiterate, the Court finds that Duke has failed to show there is a substantial question as to the validity of the infringed claims. The substantial and clear evidence of Duke’s intent to copy the QuickSwitch, which the Court detailed above at length, further fortifies the Court’s determination that the Asserted Patents were not obvious.¹⁵ *See supra* at 4–6. “The fact that a competitor copied technology suggests it would not have been obvious.” *WBIP*, 829 F.3d at 1336. Duke’s HCF-development team acknowledged the “heavy amount of learning” it would take to develop HCF technology, thus emphasizing that the invention described by the Asserted Patents was not obvious; if Finegan and other prior art made the QuickSwitch technology obvious, as Duke contends, it is unclear why Duke’s own development team thought a “heavy amount of learning” would be required to create an HCF unit. Moreover, though evidence of copying is a necessary consideration in assessing validity, Dr. Homan admitted that he did not consider such evidence in his invalidity analysis. *See* Doc. [117] at (214:15–216:15); *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1368 (Fed. Cir. 2012) (noting defendant’s invalidity expert “even admitted that he did not consider the objective indicia of nonobviousness in reaching his

¹⁵ The Court finds that there exists the necessary nexus between the objective evidence of nonobviousness here and the merits of the claimed invention. *See WBIP, LLC*, 829 F.3d at 1329. “[T]here is a presumption of nexus for objective considerations when the patentee shows that the asserted objective evidence is tied to a specific product and that product ‘is the invention disclosed and claimed in the patent.’” *Id.* (quoting *J.T. Eaton & Co. v. Atl. Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997)). That is the case here, since the QuickSwitch practices the Asserted Patents, and indeed “is the invention disclosed and claimed in the patent.” While the presumption of nexus is rebuttable, Duke has not demonstrated that its copying was due to any factors other than the advantages of the Asserted Patents. *See id.* It has thus failed to rebut the presumption of nexus.

conclusions regarding the invalidity of the patents”). The Court considers the significant evidence of copying to weigh heavily in favor of a finding of nonobviousness.

Other objective indicia of nonobviousness exist here. The evidence before the Court clearly establishes that the QuickSwitch has been a commercial success, not only in the form of revenue for LTI but also in that other companies—including Duke—have long purchased the QuickSwitch to drop into and sell as a part of its own counters. “Demonstrating that an invention has commercial value, that it is commercially successful, weighs in favor of its nonobviousness.” *WBIP*, 829 F.3d at 1337. And LTI exclusively occupied the HCF market for over ten years, until Duke copied the QuickSwitch. Given the QuickSwitch’s commercial success, there surely was an incentive for other companies to produce an analogous product. But no one else did. The Court finds this evidence, coupled with Duke’s copying of the QuickSwitch, to strongly and objectively contradict Duke’s assertions that the Asserted Patents were obvious at the time of their creation. *See id.* (“If in fact a product attains a high degree of commercial success, there is a basis for inferring that [attempts to a solution] have been made and have failed.” (quoting *Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1376 (Fed. Cir. 2005))). Finegan’s differences from the Asserted Patents and the objective evidence of nonobviousness are more than sufficient for the Court to find that the Asserted Patents were not obvious, but the Court wishes to briefly address Duke’s improper reference to the Asserted Patents’ inventor’s statements before concluding its invalidity analysis.

iii. Duke Relied on Hindsight Reasoning in Arguing the Prior Art Provided a Motivation to Create the Asserted Patents

The Court finds additional support for its nonobviousness conclusion in Duke’s reliance on the statements of Howell Ben Shackelford, the inventor of the Asserted Patents, made in the

course of patent prosecution. *See, e.g.*, Doc. [88] at 29 (citing Shackelford as noting in prosecution “a desire in the food service industry to provide a single unit that could offer both heating and cooling in the same unit” and suggesting, based on that desire, that “Dr. Homan’s declarations provide logical reasons why a POSA would be motivated to modify Finegan’s multi-well embodiment to include” the additional features of the infringed claims). It is well established that, for an obviousness challenge to succeed, more is required than simply showing that an invention is made up of elements already known in the art at the time of the invention. *See Smiths*, 183 F.3d at 1356; *Princeton Biochems., Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1338 (Fed. Cir. 2005) (“[S]imply identifying all of the elements in a claim in the prior art does not render a claim obvious.”). “Instead, the relevant inquiry is whether there is a reason, suggestion, or motivation *in the prior art* that would lead one of ordinary skill in the art” to combine the references. *Smiths*, 183 F.3d at 1356 (emphasis added); *see also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007) (“A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.”). In other words, it is not enough for Duke to point to its voluminous prior art references as containing all the elements and limitations of the infringed claims;¹⁶ Duke must establish that those references would have provided a reason or motivation to one skilled in the art to combine all those elements to create the module described in the Asserted Patents. Nor is it enough for Duke to cite the inventor’s own reasons for developing the invention, for “[t]his line of reasoning would import hindsight into the obviousness determination by using the invention as a roadmap to find its prior art components.” *Princeton Biochems.*, 411 F.3d at 1337. The Court is unpersuaded that Duke has sufficiently established a

¹⁶ The Court does not hold that Duke has even established, on the evidence currently before the Court, that all the limitations of the infringed claims are disclosed by the prior art.

motive, existing in the prior art and not based on hindsight reasoning, for combining or altering the prior art in the manner Duke suggests.

Take as an example Dr. Homan’s proposed combination of Finegan and the Safyan patent to make obvious multiple wells in the same food bar.¹⁷ *See* Doc. [88-14] at 49–60. He asserts that a person of skill in the art would be motivated to arrange what he refers to as “Finegan’s wells . . . to be adjacent in Finegan’s food bar . . . to permit simultaneous display of independently heated and cooled food in a compact space-saving arrangement, such as in Safyan.” In support of this motivation, Dr. Homan cites a statement in the ’761 patent’s prosecution history by *the inventor of the Asserted Patents*—Shackelford—for the proposition that “it was known that ‘[s]pace and flexibility are at a premium in cafeteria lines.’” *Id.* ¶ 179. Based on Shackelford’s statement, Dr. Homan concludes that a person of skill in the art “would be motivated to minimize the length of the food bar to take up less space and reduce the amount and costs of materials for manufacture.” *Id.* Continuing with this line of reasoning, Dr. Homan states that “[s]uch an arrangement would permit simultaneous display of heated and cooled food in a single bar.” *Id.* ¶ 180. In explaining why such an arrangement would be desirable, Dr. Homan yet again defers to a full paragraph quoting “the inventor of the ’761 patent,” which in part says “there was a desire in the food service industry to provide a single unit that could offer both heating and cooling in the same unit.” *See id.* Thus, in arguing a person skilled in the art would have had good reason to incorporate the teachings of Finegan to create a single-module, multiple-well food module permitting simultaneous display of hot and cold food, Dr. Homan relied largely on the thinking of the inventor of the Asserted Patents himself. That style of reasoning is unpersuasive to the Court, especially in

¹⁷ As the Court discussed, this proposed combination is not relevant or necessary to the Court’s findings here. *See* subsection III(A)(2)(b), *supra*. The Court draws attention to this portion of Dr. Homan’s analysis only to demonstrate his reliance on Shackelford’s own statements in arguing certain claims of the Asserted Patents are obvious.

light of the differences discussed between Finegan and the Asserted Patents. *Daiichi Sankyo Co. v. Matrix Labs*, 619 F.3d 1346, 1354 (Fed. Cir. 2010) (noting that the obviousness analysis must focus on “state of the art *at the time the invention was made* to find a motivation”). Though not necessary to the Court’s conclusion that the Asserted Patents are not obvious, Duke’s use of Shackelford’s statements provide additional support for the conclusion that Finegan would not itself motivate a person of skill in the art to invent the Asserted Patents.

Ultimately, the Court finds that Duke has provided insufficient evidence thus far to raise a substantial question as to the validity of the claims of the Asserted Patents, either on the ground of anticipation or obviousness. Given that determination, the Court holds that LTI has carried its burden of showing it is likely to succeed on the merits of its claims here, as LTI has demonstrated it is likely to show infringement of at least claims 3, 9, 10, 13, 15, and 16 of the ’761 patent and claim 8 of the ’970 patent, and Duke has failed to raise a substantial question as to the validity of those claims. Having found that this important factor favors granting LTI injunctive relief, the Court will next assess whether LTI has demonstrated it is likely to suffer irreparable harm in the absence of an injunction.¹⁸

¹⁸ To the extent that Duke asserts the Court should not issue an injunction because LTI did not disclose to the patent examiner a letter from a Vollrath Company attorney contending that Finegan makes invalid the Asserted Patents, the Court rejects that argument for purposes of the instant Motion. *See* Docs. [88] at 32; [70-11]; *see generally* Doc. [70]. First, as the Court fully discussed above, it disagrees with the conclusion in the Vollrath letter that Finegan anticipates or makes obvious the Asserted Patents. Second, the cases Duke cites do not support the proposition LTI had a duty to submit the letter to the PTO during the prosecution of the ’253 patent. In *Cutsforth, Inc. v. Lemm Liquidating Co.*, the court merely denied a motion to dismiss an inequitable conduct claim where the plaintiff had failed during prosecution of a patent to disclose to the PTO invalidity contentions *made in litigation* regarding two related patents. No. 12-cv-1200 (SRN/JSM), 2013 WL 2455979, at *1–2, 7–8 (D. Minn. June 6, 2013). The posture of this case is different than that in *Cutsforth*, and the Vollrath letter was not the subject of or involved in any litigation. Meanwhile, the court in *American Calcar, Inc. v. American Honda Motor Co.* upheld a finding of inequitable conduct where a patent applicant made disclosures that excluded material information. 768 F.3d 1185, 1190 (Fed. Cir. 2014). Here, LTI disclosed Finegan in the prosecution of the ’253 patent; the Vollrath letter cites directly to Finegan in making its argument. LTI was entitled to assume the patent examiner would review the Finegan patent just as fully as the attorney for Vollrath.

B. Irreparable Harm

Having reviewed the evidence in full, the Court finds that LTI is likely to suffer irreparable harm as a result of Duke's infringement in the absence of injunctive relief. LTI has provided evidence supporting that it will likely lose, or has already lost, customers and future sales, its position as the HCF-market leader and status as an innovator, and that it is likely to suffer price erosion. The Court discusses the bases for its finding below, beginning with the LTI's likely loss of access to the HCF market and its customers.

1. In the Two-Player HCF Market, LTI Will Lose Access to Customers and the Market Itself Because of Duke's Infringement

Despite Duke's protestations that monetary damages would adequately compensate LTI, the Court views as significant Duke's concession that it competes directly with LTI in a two-player market for purposes of assessing LTI's potential harm here.¹⁹ The Federal Circuit's decision in *Trebro Manufacturing, Inc. v. Firefly Equipment, LLC* is instructive. 748 F.3d 1159, 1170 (Fed. Cir. 2014). There, the court found the district court abused its discretion in finding a lack of irreparable harm in a patent infringement case. *See id.* In holding that the harm to the plaintiff was not speculative, the court noted that the "sod harvester market at issue . . . [was] a tiny market with only three players." *Id.* The defendant was a new entrant to the market, and the court specifically pointed out that "every sale to [defendant] is a lost sale to [plaintiff]," which in turn translated into a lost customer. *Id.* That was particularly impactful because the sod harvesters at issue, once purchased, were unlikely to require replacement for several years. *Id.* And the

¹⁹ While Duke argued in its Opposition to Plaintiff's Motion that LTI and Duke are not the only competitors in the HCF market, see Docs. [31] at 29, Duke's counsel admitted at the hearing that only Duke and LTI offer the specific HCF product at issue here. Doc. [117] at (71:15–72:6). Regardless of that admission, the Court finds that the evidence supports the conclusion that LTI and Duke directly compete in a two-player market for purposes of assessing whether there is irreparable harm, in part because only their products include freezing capabilities, are NSF-4 and NSF-7 compliant, and are marketed nationally. *See* Docs. [11] at 7–8; [103] at 9–10; [103-5] at 1; [103-11]; [103-12] at 2; [117] at (37:11–38:12), (42:20–43:2).

defendant had already sold one of the patented products at issue to a former customer of the plaintiff, in addition to “pre-selling” six more. Finally, and of relevance here, the court explained that “[e]ven though [plaintiff] may be able to estimate” the price, profit, and number of sales of its sod harvesters, “that does not automatically mean money damages are adequate.” *Id.* Instead, the court held, the record’s reflection that the plaintiff was not likely to recover losses of market share and customers suggested that money damages were “likely inadequate.” *Id.* at 1171–72.

In the context of irreparable harm caused by infringement, the facts here are substantially similar to those in *Trebro*. Like the sod-harvester market, the niche market for the HCF units at issue here is “tiny;” there is no dispute that LTI and Duke are the only two players in the market and that Duke is the new entrant—as a result of its deliberate copying and infringement—to that market. *See* Doc. [117] at (71:15–72:6); *supra* at 2 n.2. It is clear from the evidence here that, because they are the only two sellers of HCF units of comparable capabilities, any time Duke makes a sale of its infringing HCF product, LTI loses a sale of QuickSwitch. While Duke argues that such a lost sale is readily calculable and, thus, that there exists a legal remedy to LTI’s harm, the injury to LTI exceeds mere lost sales.²⁰ Like the plaintiff in *Trebro*, LTI loses not only a sale, but a customer. Ben Casey, LTI’s President and CEO, stated in his declaration that the loss of a customer at the point of sale generally means loss of meaningful access to that customer for any future sales, given the significant initial investment in an HCF unit and because “[c]ustomers often repeat their purchases.” Doc. 11-1 ¶ 39. And the loss of access to customers is a nigh impossible loss to quantify—if LTI loses a customer to Duke, it risks losing not only the sale of that HCF unit,

²⁰ The lost sale is, in and of itself, a significant injury to LTI. At the hearing, LTI’s President and CEO, Ben Casey, testified that the QuickSwitch—LTI’s flagship product—generally makes up between 15–18% of LTI’s annual revenue; loss of a significant portion of that revenue could easily rise to the level of an existential issue for LTI. *See* Doc. [117] at (35:1–4). While financial loss alone is generally insufficient to warrant injunctive relief, this potential for substantial financial loss contributes—along with loss of customers, market share, reputation as an innovator, and price erosion—to the Court’s conclusion that LTI will likely suffer irreparable harm absent an injunction.

but the loss of a relationship with a customer, and with it the likely loss of additional, future purchases from that customer as well as references to other potential customers. *See Marine Travelift, Inc. v. ASCOM SpA*, No. 14-c-443, 2014 WL 4215925, at *10 (E.D. Wisc. Aug. 25, 2014) (“The loss of a single contract has a ripple effect . . . Relationships and referrals are lost, as is the ability to sell parts over the lifetime of the product.”); *Robert Bosch LLC v. Pylon Mfg.*, 659 F.3d 1141, 1151–54 (Fed. Cir. 2011). And Duke has already made several sales of its HCF product in the short time it has been on the market. *See* Docs. [103] at 13; [117] at (73:18–21). LTI’s concern that Duke will cause it to lose sales is not some unlikely-to-be-realized fantasy. *See Trebro Mfg.*, 748 F.3d at 1170 (noting defendant had already sold one product to a former customer of the plaintiff).

Furthermore, because of the long time for replacement of its product, with a lost sale the *Trebro* plaintiff risked losing a long-term customer relationship; similarly, because of the likelihood of repurchase and the types of consumers to whom LTI and Duke market,²¹ a sale LTI loses to Duke is likely to have a ripple effect exceeding mere lost dollars and cents. And, considering the likelihood of repurchase of an HCF unit, the Court does not think it is a coincidence that Duke finally decided to copy the QuickSwitch after it had been on the market for over ten years and Duke had been selling its own countertops incorporating the QuickSwitch since 2012. As Duke’s HCF-development materials make clear, Duke fully intended to target the QuickSwitch

²¹ For example, schools are regular purchasers of HCF products. LTI has a deal, for instance, with the Duval County, Florida school district food service director. Doc. [11] at 7. That school district is, LTI says, one of the largest in the country. *Id.* LTI urges that “because of the coordinated purchasing within [a] district, a loss of one sale in a school district very likely means a loss of subsequent sales within that district.” *Id.* The Court finds this argument compelling. If Duke were to make an HCF sale to Duval County or a similar school district, LTI could lose not only that sale, but future sales of QuickSwitch or its other products, repairs, or recommendations both within that district and to other districts outside it. Such an injury is exactly the sort of irreparable harm warranting injunctive relief, since there would be no way of accurately or efficiently measuring LTI’s loss. *See i4i Ltd. Partnership v. Microsoft Corp.*, 598 F.3d 831, 862 (Fed. Cir. 2010) (“Difficulty in estimating monetary damages is evidence that remedies at law are inadequate.”).

replacement market, hence Duke’s goal of “copy[ing] . . . LTI to allow interchangeability.” Doc. [103-9]; *see also id.* (noting “there is the potential to replace aging . . . LTI units”). Duke, then, is fully aware that by sale of its copied and infringing HCF unit it can take not only first-time HCF customers from LTI, but also previous LTI customers whose QuickSwitch needs a replacement. In this way, permitting Duke to continue to sell its infringing HCF product could ultimately lead to LTI losing access to more than just the customers to whom it already sells: it might lose access to the entire HCF market, and in any case would surely lose a significant portion of its market share. *See Trebro*, 748 F.3d at 1170 (finding the plaintiff “very likely to lose significant market share as well as customers” and counseling that market share is “pertinent to the irreparable harm inquiry”); Doc. [103-9] (Duke HCF-development document stating that “LTI is not going to lie down and watch their market share diminish”). And it will lose that market share not due to fair and honest competition, but because of Duke’s intentional copying of the QuickSwitch. *See i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 862 (Fed. Cir. 2010) (noting that loss of market share “may frequently defy attempts at valuation, particularly when the infringing acts significantly change the relevant market”). The Court finds that Duke’s competition in the two-player HCF market, which is a result of Duke’s intentional copying of the QuickSwitch, will likely irreparably harm LTI in the form of lost market share and access to customers. That alone is sufficient to find that this factor favors LTI, but the Court also believes LTI’s status as innovator and its right to exclusively practice the Asserted Patents are threatened by Duke’s conduct. The Court turns to those issues now.

2. Duke’s Infringement Damages LTI’s Reputation as an Innovator and Destroys LTI’s Legally Protected Right to Exclusively Practice the Asserted Patents

Damage to LTI’s reputation as an innovator serves as another basis for finding irreparable

harm. If the Court permits Duke to continue to sell its infringing products, LTI is likely to lose its long-held position as the predominant and exclusive provider of products with HCF capabilities. LTI's reputation as an innovator is bound up with the patented technology at issue here, as consumers of the QuickSwitch are likely to purchase it because of its ability to rapidly change temperatures in wells independent of one another. *See Varex Imaging Corp. v. Richardson Elecs., Ltd.*, No. 18-cv-6911, 2019 WL 4750270, at *5 (N.D. Ill. Sept. 30, 2019) (“[F]or infringement to cause . . . reputational harm, the patents at issue must involve the features or qualities that create the reputation as an innovator amongst consumers”). Reputational harm—including loss of reputation as an innovator due to direct competition—constitutes irreparable harm. *See Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1344–45 (Fed. Cir. 2013) (finding plaintiff's reputation as an innovator would be damaged “if customers found the same ‘innovations’ appearing in competitors’ snowplows”); *Tinnus Enters., LLC v. Telebrands Corp.*, 846 F.3d 1190, 1208 (Fed. Cir. 2017) (noting “tarnish[ment] of [plaintiff's] status as the innovator in this market” in finding irreparable harm). It is beyond argument that Duke's presence in the market, which, again, it achieved only because of its intentional copying of the QuickSwitch, takes away from LTI's status as an innovator in the HCF field, since it suggests that others have developed the same technology as LTI. *See Douglas Dynamics*, 717 F.3d at 1344–45; *Apple Inc. v. Samsung Elecs. Co.*, 809 F.3d 633, 652–55 (Fed. Cir. 2015) (Reyna, J., concurring).

This conclusion is bolstered by the fact that LTI has not, to this point, licensed its QuickSwitch technology to any other company, including Duke. Docs. [48] at 17; [117] at (41:9–25); *see Douglas Dynamics*, 717 F.3d at 1345 (“[T]he evidence shows that [plaintiff] had never licensed the infringed patents, and intentionally chose not to, so that it could maintain market exclusivity. 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, [plaintiff]’s exclusive right to make, use, and sell the patented inventions is under attack by [defendant]’s infringement.”). In fact, it appears that Duke undertook to develop its HCF product in large part because LTI rebuffed Duke’s request to license the QuickSwitch. Doc. [117] at (39:2–19). Duke argues that LTI’s settlement offer reflects that any of its harms can be reduced to money damages. Doc. [88] at 32–34. But “the simple fact that one could, if pressed, compute a money damages award does not always preclude a finding of irreparable harm.” *Celsis In Vitro, Inc. v. CellzDirect, Inc.*, 664 F.3d 922, 930 (Fed. Cir. 2012). There is ample evidence of likely irreparable harm here; even if LTI made an offer to license the QuickSwitch to Duke,²² that “does not mean monetary damages would be adequate to compensate [LTI] for [Duke’s] continued infringement.” *Halo Elecs., Inc. v. Pulse Elecs, Inc.*, No. 2:07-cv-00331-PMP-PAL, 2013 WL 3043668, at *9 (D. Nev. June 17, 2013). Whether LTI has previously licensed or made an offer to license the QuickSwitch is simply one factor for the Court to consider in its irreparable harm analysis. *Nichia Corp v. Everlight Ams., Inc.*, 855 F.3d 1328, 1343–44 (Fed. Cir. 2017); *Acumed LLC v. Stryker Corp.*, 551 F.3d 1323, 1328 (Fed. Cir. 2008). In its discretion and on the evidence before it, the Court finds that LTI would not be made whole by a reasonable royalty, any alleged licensing offer notwithstanding. *See id.* The Court thus finds that the likely damage to LTI’s right to exclusively use and sell the Asserted Patents and its status as an HCF innovator are additional reasons LTI will suffer irreparable harm.

²² At this stage in the suit, the Court is skeptical that LTI’s litigation-induced offer to license the QuickSwitch could meaningfully establish a reasonable royalty for LTI’s patents. *See Meridian Mfg. v. C & B Mfg.*, 340 F. Supp. 3d 808, 847 (N.D. Iowa 2018) (noting, in context of calculation of reasonable royalty, that the “hypothetical reasonable calculation must occur before the litigation because litigation can ‘skew the results’ of the negotiation.” (quoting *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 872 (Fed. Cir. 2010))). After this suit was filed, LTI President Ben Casey admittedly told Duke’s President, Dave Marvel, LTI would license the patents for \$1900. Doc. [33]. But Duke, not LTI, made the initial offer to resolve the parties’ dispute, and it made that offer after LTI filed this suit. Doc. [97-1] at 7. Marvel testified at the hearing that he had no evidence of LTI offering Duke specific financial terms to license the QuickSwitch prior to this litigation. Doc. [117] at (182:1–11). And, significantly, LTI never actually agreed to license the QuickSwitch to Duke.

3. LTI Is Likely to Suffer Price Erosion if Duke Is Permitted to Continue Its Infringement

Finally, price erosion represents an alternative form of irreparable, nonspeculative injury to LTI. It is well established that evidence of price erosion weighs in favor of a finding of irreparable harm. *See, e.g., Polymer Techs., Inc. v. Bridwell*, 103 F.3d 970, 976 (Fed. Cir. 1996) (“Requiring purchasers to pay higher prices after years of paying lower prices . . . is not a reliable business option.”); *Abbott Labs. v. Sandoz, Inc.*, 544 F.3d 1341, 1361–62 (Fed. Cir. 2008) (finding precedent supported the conclusion that price erosion constitutes irreparable harm). Testimony at the hearing made clear that the exact pricing of Duke’s HCF product and the QuickSwitch may be a challenge to track—another reason, weighed with the other factors present here, the damage to LTI is irreparable—and that the pricing of the products depends on numerous factors and can fluctuate between sales. The parties also disagree whether Duke has truly offered its HCF product at a lower price than the QuickSwitch. *See, e.g., Docs. [31] at 30–31; [88] at 29–30.* But regardless of whether Duke has undercut LTI’s price thus far,²³ the evidence makes clear that Duke has, at the very least, seriously considered doing so, if it did not outright plan on it. *See Docs. [103-2]; [103-13]; [103-14].* Duke only recently entered the market, and there is nothing, in the absence of an injunction, stopping Duke from significantly lowering its HCF prices.²⁴ Given that Duke’s HCF-development team clearly expressed a desire to target lower pricing than LTI’s QuickSwitch and anticipated LTI would discount its price in response, *see id.*, the Court finds price erosion is a

²³ There is, in fact, already at least one example of a sale LTI made that was affected by the existence and pricing of Duke’s HCF unit: the “Santa Monica job,” wherein LTI discounted approximately \$1000 from a QuickSwitch sale in response to the customer’s initial decision to “outsource” his order because “[h]e was able to get better pricing with Duke.” *See Docs. [48-1]; [117] at (45:17–46:20).*

²⁴ At the hearing, though Marvel initially testified that he had set a limit on the maximum discount on Duke’s HCF product, he later acknowledged that the limit was Duke’s standard policy, but it could still give more substantial discounts than under that policy. *Compare Doc. [117] at (174:17–176:12), with id. at (184:1–20).*

distinct likelihood, if it has not already occurred.²⁵ See *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008) (requiring for injunctive relief that a plaintiff show “he is *likely* to suffer irreparable harm” (emphasis added)); *Sierra Club v. U.S. Army Corps of Eng’rs*, 645 F.3d 978, 992 (8th Cir. 2011) (explaining that the Supreme Court in *Winter* rejected a “possibility” standard, instead requiring a movant to show that “irreparable injury is *likely*”).

For all the reasons discussed above, the Court finds that LTI has demonstrated it is likely to suffer irreparable harm in the absence of injunctive relief. This factor thus favors granting Plaintiff’s Motion.

C. Balance of the Equities and Public Interest

The balance of the equities favors granting an injunction here. First and foremost, the Court is mindful that LTI is a significantly smaller company than Duke, and, relatedly, that the QuickSwitch makes up a substantial portion of LTI’s revenue—15 to 18 percent annually. See Docs. [117] at (34:22–35:4). Meanwhile, Duke’s HCF product makes up only a fraction of a percent of Duke’s annual revenue, and it is but one product among Duke’s several product lines. Doc. [103] at 38–39. Therefore, to the extent LTI loses business and customers to Duke as long as Duke is permitted to compete with its infringing product, LTI risks losing a significant portion of the income on which it relies. Not granting the injunction would therefore significantly burden LTI. Though being enjoined from producing and selling its HCF will have some impact on Duke, the financial burden would be only modest, particularly considering Duke has been in the HCF market for little more than a year, and it could simply return to purchasing LTI’s QuickSwitch to

²⁵ Casey’s declaration that the food-service industry is uniquely susceptible to price erosion reinforces this point. Doc. [11-1] ¶ 41. So too does the declaration of Timothy Braun, LTI’s sales manager on the Santa Monica job, wherein Braun explained that in his experience it would be difficult to, in the future, charge a customer at the original, higher price after making a discount due to Duke’s competition. See Doc. [48-1] ¶ 9. Braun further noted that other customers who become aware of LTI’s discounts might demand the same, thus depriving LTI of any leverage to charge its original prices. See *id.*; *Tinnus Enters.*, 846 F.3d at 1200.

drop into its own countertops. Furthermore, that Duke intentionally copied the QuickSwitch does it no favors here: “[O]ne who elects to build a business on a product found to infringe cannot be heard to complain if an injunction against continuing infringement destroys the business so elected.” *Merial Ltd. v. Cipla Ltd.*, 681 F.3d 1283, 1306 (Fed. Cir. 2012) (quoting *Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 704 (Fed. Cir. 2008)); see also *Robert Bosch LLC*, 659 F.3d at 1156 (“[R]equiring [plaintiff] to compete against its own patented invention, with the resultant harms described above, places a substantial hardship on [it].”). Duke made its own bed in this regard. The Court finds that the balance of equities factor favors LTI.

Finally, the Court further concludes that the public interest will be served by protecting LTI’s efforts in developing and securing the Asserted Patents. “[T]he public is best served by enforcing patents that are likely valid and infringed.” *Abbott Labs. v. Andrx Pharms., Inc.*, 452 F.3d 1331, 1348 (Fed. Cir. 2006). It would not be in the public interest to permit Duke to continue to profit from its deliberate copying, so, as with the other three, this factor favors LTI, leading the Court to the conclusion that LTI is entitled to injunctive relief here.

CONCLUSION

The Court acknowledges that the grant of a preliminary injunction is an exceptional remedy. But this case, too, is exceptional. After years of what appears to have been an amicable and successful business relationship, the evidence before the Court strongly suggests Duke decided to simply copy LTI’s QuickSwitch. It should come as no surprise, then, that the Court finds it likely that Duke’s HCF product infringes at least claims 3, 4, 9, 10, 13, 15, and 16 of the ’761 patent and claim 8 of the ’970 patent. The Court further finds that Duke has failed to raise a substantial question as to the Asserted Patents’ validity. None of the prior art referenced by Duke anticipates the claims of the Asserted Patents. Furthermore, Duke’s obviousness arguments fall

short, as the Finegan patent bears important differences from the Asserted Patents, the objective evidence of copying and commercial success weigh heavily in favor of a finding of nonobviousness, and Duke relied inappropriately on hindsight reasoning. LTI has therefore demonstrated it is likely that Duke's HCF infringes the valid claims of the Asserted Patents, and accordingly it is likely to succeed on the merits. LTI has also carried its burden of showing it is likely to suffer irreparable harm. The Court finds that LTI has provided legitimate, nonspeculative evidence that it will likely lose customer relationships and market share, suffer reputational harm, and endure price erosion in the absence of injunctive relief. Finally, both the balance of the equities and the public interest favor granting LTI's request for the extraordinary relief of a preliminary injunction.

Accordingly,

IT IS HEREBY ORDERED that Plaintiff's Motion for Preliminary Injunction, Doc. [10], is **GRANTED**.

IT IS FURTHER ORDERED, pending the posting by Low Temp Industries, Inc. of the Court-ordered bond, that Duke Manufacturing Co., its parents, subsidiaries, affiliates, directors, officers, agents, servants, employees, and attorneys, and those persons in active concert or participation with them who receive actual notice of this order by personal service or otherwise, must immediately cease selling, shipping, delivering, using, manufacturing, distributing, marketing, advertising, completing any orders or sales for, taking any orders for, committing to supply, or offering to sell any of its HotColdFreeze units, and all other products that are only colorably or trivially different therefrom. This Preliminary Injunction shall be in force pending a trial on the merits of this action, or until further order of this Court, or upon expiration of the Asserted Patents, whichever comes first.

IT IS FINALLY ORDERED that, pursuant to Federal Rule of Civil Procedure 65(c), this Preliminary Injunction is conditioned upon the posting by Low Temp Industries, Inc. of a bond in an amount to be determined by this Court. The Court will hold a hearing (the details of which are forthcoming in a separate order) regarding the bond amount via Zoom on Monday, June 28, 2021 at 12:00pm central time. The Preliminary Injunction issued herein is effective on the date that Low Temp Industries, Inc. posts with the Clerk of Court the required bond in the amount determined by further Order of this Court.

Dated this 25th day of June, 2021.



MATTHEW T. SCHELP
UNITED STATES DISTRICT JUDGE

From: Moed_AutoSend@moed.uscourts.gov
Sent: Monday, June 28, 2021 4:02 PM
To: MOED_ECF_Notification@moed.uscourts.gov
Subject: Activity in Case 4:20-cv-00686-MTS Low Temp Industries, Inc. v. Duke Manufacturing Co. Docket Text Order

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U.S. District Court

Eastern District of Missouri

Notice of Electronic Filing

The following transaction was entered on 6/28/2021 at 4:01 PM CDT and filed on 6/28/2021

Case Name: Low Temp Industries, Inc. v. Duke Manufacturing Co.

Case Number: [4:20-cv-00686-MTS](#)

Filer:

Document Number: 146(No document attached)

Docket Text:

Docket Text ORDER: As stated at the June 28, 2021 bond hearing, IT IS HEREBY ORDERED that Duke's oral motions, made at the hearing, for reconsideration of the Court's entry of a Preliminary Injunction, Doc. [143], are DENIED. IT IS FURTHER ORDERED that Dukes oral motion, made at the hearing, to stay the entry of the Preliminary Injunction pending a decision by the Patent Trial and Appeal Board is DENIED. IT IS FINALLY ORDERED that Duke shall email to the Court no later than close of business on Tuesday, June 29, 2021, the invoice numbers for the twelve outstanding HCF orders discussed at the hearing. Per the parties' consent, the Court will enter an Amended Preliminary Injunction Order consistent with the bond hearing. In that Amended Preliminary Injunction Order, the Court further will set the bond pursuant to Fed. R. Civ. P. 65(c). Signed by District Judge Matthew T. Schelp on 06/28/2021. (KCD)

4:20-cv-00686-MTS Notice has been electronically mailed to:

David P. Stoeberl dps@carmodymacdonald.com, ajc@carmodymacdonald.com,