

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROBE LIGHTING S.R.O.,
Petitioner,

v.

GUANGZHOU HAORYANG ELECTRONIC CO., LTD.,
Patent Owner.

IPR2025-01016
Patent 11,988,373 B1

PATENT OWNER'S RESPONSE TO PETITION

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Exhibit List

Exhibit No.	Description
2001	<i>Synchronously</i> , Merriam-Webster.com Dictionary, https://www.merriam-webster.com/dictionary/synchronously . (last visited Jan. 6, 2026).
2002	<i>Synchronously</i> , Cambridge English Dictionary, https://dictionary.cambridge.org/us/dictionary/english/synchronously . (last visited Jan. 6, 2026).

I. PRELIMINARY STATEMENT

It's rare to encounter a Petition with obviousness grounds so conspicuously based on hindsight reconstruction of the claims.

Jurik, Petitioner's primary reference, teaches a luminaire with "connected enclosures [that] are vented to the outside air through each other to a single water and humidity reducing system." Jurik at 3:24-26. Jurik defines the term "connected enclosures" to refer to these interconnected enclosures that can share the benefits of the single water and humidity reducing system. *Id.* at 4:50. Jurik also extolls the benefits of having all the enclosures connected together. It explains that this arrangement allows the "ability to increase the number of enclosures [and] increase[e] the number of luminaire components that may be protected from damage or degradation . . ." Jurik at 4:43-49.

Petitioner's obviousness rationales for claims 5 and 7 assert that it would have been obvious to add additional membranes if the enclosures were isolated (claim 5) and that it would have been obvious to isolate the enclosures to allow for independent testing (claim 7). But Jurik's system is specifically designed to have interconnected—i.e., not isolated—enclosures. Isolating enclosures is taught away from by—and antithetical to—Jurik's teachings. Petitioner simply ignores this contradiction.

But Petitioner goes beyond simply ignoring Jurik's disclosure. For claims 5, 7, and 8, Petitioner proffers motivations to combine that are not only completely absent from but also inconsistent to or outright contradicted by the prior art. Petitioner offers no underlying factual evidence from the prior art to support its motivations and cites to a conclusory expert declaration that simply repeats, *verbatim*, Petitioner's unsupported motivations. Petitioner appears to be using the '373 patent—the challenged patent—as a roadmap to reconstruct the claims. This is the case because Petitioner's unsupported motivations are the same motivations expressly taught by the '373 Patent.

Petitioner cannot rely on motivations to combine that (1) exist only in the challenged patent and (2) are not only absent from the prior art but taught away from and antithetical to the prior art's teachings. And Petitioner cannot support such motivations with conclusory expert testimony bereft of evidentiary support. The Petition's assertions based on such motivations are manifest examples of hindsight reconstruction. The Board should thus find Petitioner has fallen far short of meeting its burden to demonstrate unpatentability of claims 5, 7, and 8 of the '373 patent. Moreover, because claims 12 and 13 depend from claim 5, the Board should confirm their patentability for the same reasons as for claim 5.

II. CLAIM CONSTRUCTION

A. Applicable Law

The Board construes claims “in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b).

B. “synchronously increasing the temperature” (claim 8)

The Board should construe “synchronously increasing the temperature” inside the head housing and the base housing (claim 8) to mean “increasing the temperature at the same speed.” This construction is required by the specification and is also the ordinary meaning of “synchronously increasing.”

The '373 patent specification states “synchronously increasing the temperature inside the head housing 110 and the base housing 310” is accomplished using a “temperature control system.” '373 patent at 7:43-47. The control system “*coordinately control[s]* the temperature inside the head housing 110 and the base housing 310 *to keep the temperature therein consistent*, thus avoiding temperature asynchronous due to mutual influence of air pressure of the head housing and the base housing . . .” *Id.* at 7:47-59 (emphases added). This statement explicitly says the temperature in the two housings remain substantially “consistent” in order for the increase in temperature to be considered “synchronously” occurring. The temperature of two spaces can only remain

“consistent” if the temperature increase in both spaces happens according to the proposed construction: i.e., at the same speed. For example, increasing the temperature from the same first temperature to the same second temperature in two spaces over substantially the same period of time would result in the temperature remaining “consistent” in the two spaces.

In fact, the statement from the specification expressly defines the converse—an inconsistent temperature is considered “asynchronous”—because it states the controller “keep[s] the temperature therein consistent, *thus avoiding temperature asynchronous . . .*” *Id.* at 7:47-59 (emphasis added).

The specification further states that the “temperature detected by the temperature sensor 130 can synchronously increase by controlling the *heating power* of the respective heating elements.” *Id.* at 8:11-16 (emphasis added). In other words, the specification explains that the synchronous increase of temperature is accomplished by ensuring the heating power—which is another way to say the speed or rate of heating—is controlled for the respective heating elements.

Consequently, because (1) the specification explicitly says increasing the temperature inconsistently between the head housing and the base housing is considered asynchronous and (2) the specification requires controlling the heating power (i.e., the heating speed) of the respective heating elements when

synchronously increasing the temperature, the Board should construe “synchronously increasing the temperature” to mean “increasing the temperature at the same speed.”

Patent Owner notes that its construction does not require every temperature increase to be exactly the same at every moment in time. For example, Patent Owner’s construction encompasses increasing the temperature in the head and base housing from the same starting temperature to the same ending temperature over the same period of time. It does not, however, encompass merely increasing the temperature in the head and base housing at the same time without any temporal consistency between a start temperature and an end temperature.

Patent Owner’s construction is also the plain and ordinary meaning of “synchronously increasing,” as demonstrated by multiple dictionary definitions. For example, the Merriam-Webster online dictionary defines the adverb “synchronously” as “at the same speed or frequency.” Ex. 2001 at 1. Similarly, the Cambridge online dictionary defines the adverb “synchronously” as “in a way that involves things happening or being done at the same time or speed.” Ex. 2002 at 1.

Petitioner wrongly proposes to construe “synchronously increasing the temperature” to simply mean increasing the temperature “at the same time.” Petition, Paper 1 at 62. In other words, Petitioner construes the term to *not* require

any consistency between the temperatures of the base housing and the head housing described in the '373 patent specification. Indeed, Petitioner expressly states that no “more particular meaning of ‘synchronously’ was intended, such as maintaining equal temperature in the base housing and the head housing . . .” *Id.* at 62. Petitioner’s construction is wrong for so many reasons. It not only ignores and contradicts the specification, it also contradicts the dictionary definition of the term and how one would ordinarily use “synchronously” to describe acts/verbs that involve a rate or speed.

First, Petitioner’s construction flatly contradicts the specification and is therefore wrong. *See In re Abbott Diabetes Care Inc.*, 696 F.3d 1142, 1149 (Fed. Cir. 2012) (“this court has instructed that any such construction be consistent with the specification, and that claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art”). Indeed, even under the broadest reasonable interpretation standard, a construction may not be inconsistent with the specification. *See, e.g., In re Mazed*, No. 2024-1756, 2025 WL 64188, at *3 (Fed. Cir. Jan. 10, 2025) (“claim terms are given their plain and ordinary meaning as understood by a person of ordinary skill in the art, unless that meaning is inconsistent with the specification”).

As discussed above, the specification states that the controller “keep[s] the temperature therein consistent” to avoid a “temperature asynchronous” situation.

'373 Patent at 7:47-59. But Petitioner specifically chooses a construction that does *not* require any consistency in the temperature because it excludes “a more particular meaning . . . such as constantly maintaining equal temperature in the base housing and the head housing.” Petition at 62. Put another way, the specification says synchronously increasing the temperature requires maintaining some kind of temperature consistency between the head and base housing, and if there is no temperature consistency, a temperature asynchronous situation arises. Petitioner, however, maintains that an inconsistent temperature can still be considered synchronous rather than asynchronous.

Petitioner justifies its broader construction by referring to an alleged lack of disclosure¹ in the '373 patent. Petition at 62 (noting lack of “programming steps, flowcharts, or particular controller feedback and sensor filtering routines”). But Petitioner *ignores* the disclosure actually present in the '373 patent regarding “keep[ing] the temperature therein consistent” to avoid an asynchronous situation. '373 Patent at 7:47-59. Patent Owner emphasizes that “keep[ing]” the temperature

¹ Petitioner’s alleged lack of disclosure is a thinly veiled enablement argument inappropriate for an IPR setting. Enablement is tested against the full scope of the claims, not the other way around. *See Pac. Biosciences of California, Inc. v. Oxford Nanopore Techs., Inc.*, 996 F.3d 1342, 1350 (Fed. Cir. 2021).

consistent (as described in the specification, *id.* at 7:47-59) over a period of time would result in “maintaining equal temperature” (Petition at 62) over that same period. This is the construction Petitioner considers and discards.

Second, as noted above, the dictionary definition of the adverb synchronously requires the action or verb to happen “at the same speed.” *See* Ex. 2001; Ex. 2002. While Petitioner submits a dictionary definition, it is for the wrong term: the adjective “synchronous” rather than the claimed adverb “synchronously.” This is a problem because “synchronously” is used as an adverb in the claim to modify the verb “increasing” rather than as an adjective to modify an unspecified noun. Rather than submit the correct definition, Petitioner conveniently submits the definition for the adjective “synchronous.” Petition at 62. Unsurprisingly, the first definition for the adjective “synchronous” has no explicit requirement for things to occur at the same speed since the adjective is intended to modify a noun,² rather than a verb, which usually does not have a speed associated with it.

² Even if the claim used the adjective (e.g., hypothetically read “synchronous increases [noun] in temperature” rather than “synchronously increasing [verb]”), however, the result would be the same. The dictionary definition for “synchronous” requires the modified nouns (i.e., the “increase”) to happen at the

Finally, Petitioner’s proposed construction is contrary to how the adverb “synchronously,” or even the adjective “synchronous,” is ordinarily used. For example, no one would regard two racers running on a track at different paces or two swimmers swimming through a pool at different speeds to be running or swimming “synchronously” merely because they are running/swimming at the same time. Rather, to be considered synchronously running or swimming, the participants would need to be running or swimming at the same *speed*. Similarly, no one would regard two people drinking the same amount of water to be drinking that amount of water synchronously if they began at the same time and finish at *different* times. Rather, to be considered synchronously drinking a given amount of water, the two drinkers would need to begin drinking at the same time and finish drinking at the same time. Indeed, under Petitioner’s interpretation, every car on the highway in the world is currently “synchronously driving,” regardless of speed.

same time, “hav[e] the same period,” or “operate[] at exactly the same period.”

Ex. 1021. In other words, two areas having “synchronous increases” in temperature would have to have the *same* increase in temperature at the *same* time and over the *same* period of time. Nothing in this hypothetically modified claim permits two *different* increases [noun] over *different* periods of time.

Like running and swimming, the “increasing” in “increasing the temperature” is a verb with an inherent rate or speed. As the above examples demonstrate, a person does not need any special training to understand that the appropriate definition for “synchronously” accounts for coordination in that rate/speed (over a period of time) when the adverb synchronously is applied.

In contrast, a verb that does not include a rate or speed, such as one that typically happens at a single instant or point in time, would use a definition of synchronously that does not account for speed: “in a way that involves things happening or being done at the same time ~~or speed.~~” Ex. 2002 (Cambridge Dictionary); *see also* Ex. 2001 (Merriam Webster’s first definition of “synchronously”: at the same time). For instance, synchronously jumping or synchronously clicking a mouse simply requires the acts of jumping or clicking to occur at the same time because they do not have meaningful, inherent speeds or durations in most contexts.³

Petitioner appears to be selectively—and erroneously—applying the meaning of “synchronous” applicable to instantaneous events (e.g., a synchronous

³ Patent Owner includes this caveat to acknowledge that in certain contexts involving high speed or precision, an ordinarily instantaneous event can still have a meaningful context-dependent duration.

clap) to the claim. But temperature increases happen over a period of time. As the above demonstrates, Petitioner’s construction conflicts with the specification, ignores dictionary definitions of the actual term used in the claim (synchronously rather than synchronous), and is contrary to how the adverb synchronously is ordinarily used. The Board should thus construe “synchronously increasing the temperature” to require the increase in temperature to occur at the same speed.

III. PETITIONER FAILS TO ESTABLISH THAT CLAIMS 5, 7-8, AND 12-13 ARE UNPATENTABLE

Petitioner asserts claim 5, 12, and 13 are obvious under 35 U.S.C. § 103 over Jurik or alternatively, obvious over Jurik in view of Johansen and claims 7-8 are obvious over Jurik alone. Petition at 3. A summary of Petitioner’s assertions is reproduced from the Petition in the table below:

Ground	Claims(s)	Asserted Basis
2	5, 12, and 13	Obvious (§ 103) over Jurik, or alternatively, obvious over Jurik in view of Johansen (United States Patent No. 9,777,917)
3	7-8	Obvious (§ 103) over Jurik

Petitioner fails to show that the above claims are unpatentable. Petitioner repeatedly relies on conclusory expert testimony that in turn does not cite any actual evidence from the prior art. Instead, Petitioner appears to be using the ’373 patent—the challenged patent—as a roadmap to show obviousness.

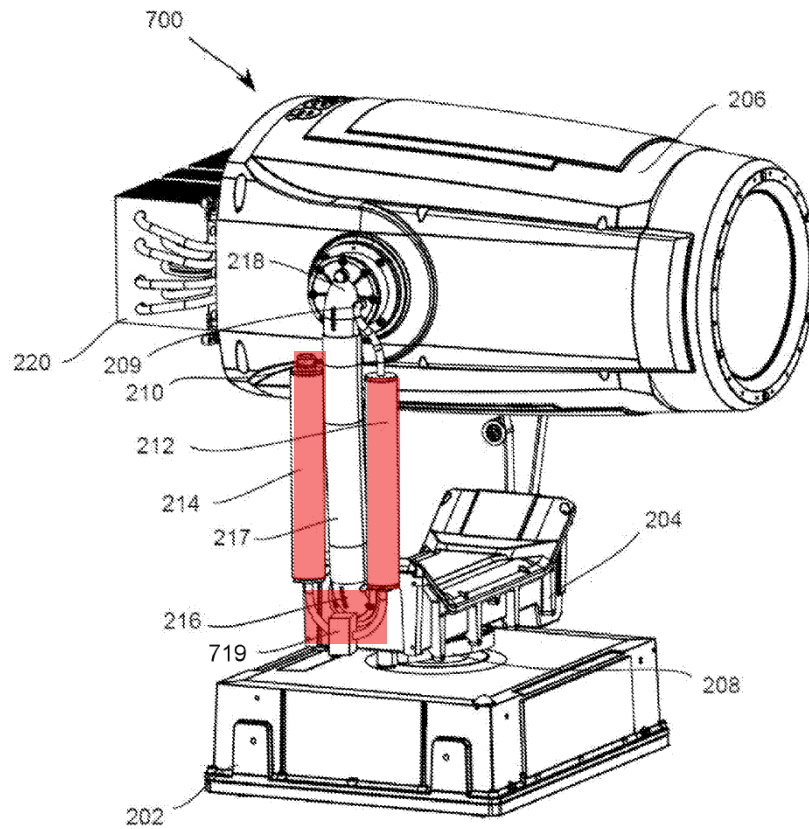
The Petition and the conclusory expert declaration ignore Jurik’s disclosure that teaches away from having multiple drying tubes and extolls the benefits of having all the enclosures connected together and vented through a “single” water and humidity reducing system. But Petitioner goes beyond simply ignoring Jurik’s teaching away. Petitioner also uses the ’373 patent’s disclosures of isolating the head and base enclosures—the antithesis of Jurik’s connected design—as the motivation to modify Jurik to have additional features such as an additional waterproof membrane (claim 5), a blocking device (claim 7), and a synchronous increase in temperature (claim 8). Patent Owner submits that relying on motivations that (1) exist only in the challenged patent and (2) are not only absent from the prior art but taught away from and antithetical to the prior art’s teachings is insufficient to show obviousness. The Board should thus find claim 5, 7, 8, 12, and 13 patentable over the grounds raised in the Petition.

A. Claim 5

Petitioner fails to demonstrate that dependent claim 5 would have been obvious over Jurik alone or alternatively obvious over Jurik in view of Johansen. Petitioner’s argument relies on conclusory expert testimony to modify Jurik. Petitioner also ignores the disclosure in Jurik that teaches away from Petitioner’s proposed combination.

The portion of Jurik that Petitioner relies on for the “waterproof breathable valve” limitation is the membrane 210/410. *See, e.g.*, Petition at 48. Petitioner admits that Jurik’s membrane 210/410 is placed at the end of “drying tubes 212 and 214 (which include a drying agent or desiccant).” *Id.* at 14. Jurik uses its membrane 210 in combination with the drying tubes, which are “configured to remove water vapor (or humidity) from incoming air.” Jurik at 5:43-46.

As shown in the figure below, Jurik’s membrane and drying tubes are huge. They are taller than the entire base enclosure 202, as large as the head enclosure 206, and are oriented along and extend the entire length of the mounting arm due to their enormous size.



Id. at Fig. 7 (annotation in red). Indeed, even in Jurik’s own block-diagram view, the membrane and associated drying tube is depicted in enormous size, as shown below.

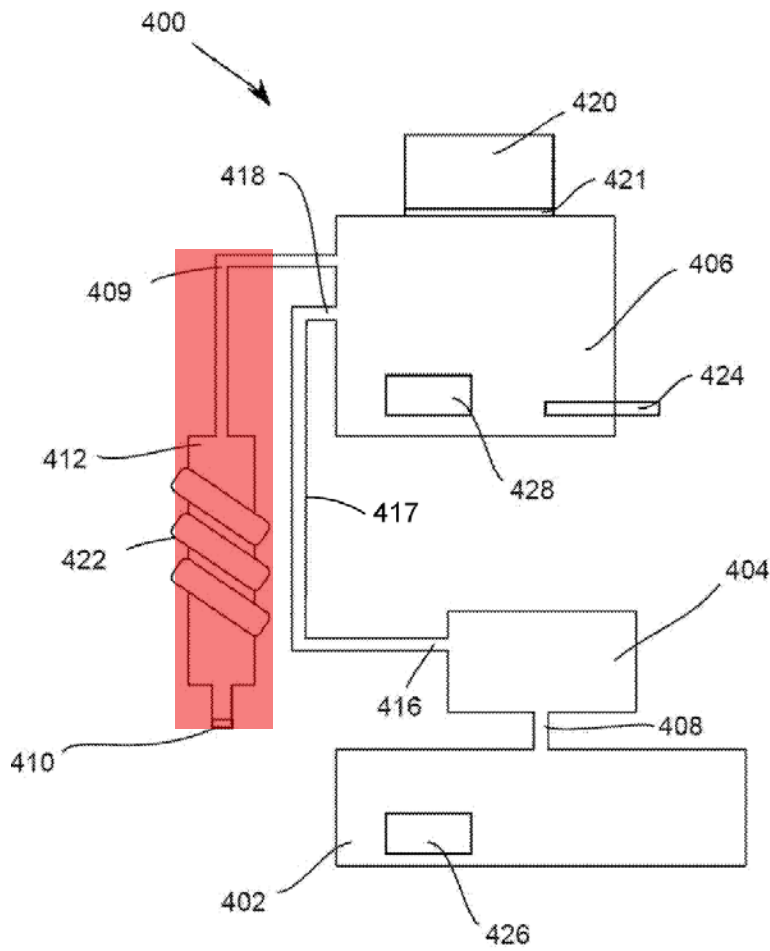


FIGURE 4

Id. at Fig. 4 (annotation in red).

Patent Owner submits that it would not have been obvious to duplicate Jurik's enormous membrane and drying tube. No special skill is required to see that duplicating Jurik's membrane and drying tube structure would result in an enormous, impractical addition to the overall footprint and structure of Jurik's luminaire. Indeed, Jurik expressly teaches away from duplicating its humidity

control method (i.e., through the drying tube and membrane) because Jurik specifically designed its luminaire to only use a *single* membrane.

Jurik designed its luminaire to have “three enclosures 202, 204, and 206 [that] are [] connected together by pipes 208 and 217 to form a combined enclosure having pressure and humidity control.” Jurik at 5:24-26. The overall “combined enclosure is vented to the external air through a vent pipe 209” that is “coupled at a second end to [the] drying tube (or chamber 212).” *Id.* at 5:26-37. In fact, Jurik expressly states that the “connected enclosures are vented to the outside air through each other to a ***single water and humidity reducing system.***” *Id.* at 3:24-26 (emphasis added). Jurik further explains that by having all the components connected together and protected by the “single” humidity reducing system, the luminaire gains the “ability to increase the number of enclosures [and] increase[e] the number of luminaire components that may be protected from damage or degradation . . .” *Id.* at 4:43-49. In other words, Jurik specifically avoided including multiple (huge) drying tubes and membranes by designing its luminaire to have a *single* combined enclosure with pressure and humidity control through the single set of drying tubes. This arrangement allows additional configurations and enclosures, all of which may be protected so long as they all remain interconnected.

Petitioner disregards Jurik's disclosure of a single combined enclosure and the obvious size of Jurik's humidity control system. *See* Petition at 47-49. Instead, Petitioner reproduces two paragraphs (134 and 135) from its expert's declaration, both of which are conclusory and ignore the above issues.

First, in paragraph 134, Petitioner's expert concludes that it would have been obvious to "simply add[] a second membrane 210/410 in Jurik." *Id.* at 48. It is not clear whether Petitioner's expert is simply adding another membrane alone or adding Jurik's humidity control system, including its drying tubes. If Petitioner is just adding a membrane, Petitioner appears to be using the claim as a roadmap by picking and choosing disparate elements from the prior art. Nothing in Jurik suggests that its membrane 210 works by itself, without the included drying tubes. Indeed, Jurik specifically recognizes that the membrane material merely "reduces or prevents" the passage of water and is used in combination with drying tubes to remove remaining "water vapor" from incoming air. Jurik at 5:38-46. If Jurik's membrane alone is sufficient, that begs the question: why does Jurik use drying tubes in the first place—let alone drying tubes that are enormous? If Petitioner is adding a membrane along with Jurik's drying tubes, Petitioner fails to discuss, or even acknowledge, the apparent difficulties that would arise given the enormous size of the drying tubes.

Petitioner's expert attempts to support his modification by stating the motivations of (1) allowing additional airflow capacity and (2) redundancy. But Jurik teaches away from and expressly contradicts Petitioner's motivations. Regarding capacity, Jurik states that the "volume of air passing . . . through drying tubes 212 and 214 is relatively small [and] the drying tubes 212 and 214 have a capacity to remove the humidity for multiple on/off cycles . . ." Jurik at 5:66-6:2. Thus, Jurik expressly considers the issue of airflow capacity and says capacity is not a problem. Regarding redundancy, as noted above, Jurik teaches away from redundancy because it discloses a luminaire that has the ability to "increase the number of enclosures" (*id.* at 4:43-49) while remaining protected from humidity because all of the enclosures are "connected enclosures" (*id.* at 4:50) that are vented through a "single" humidity reducing system. *Id.* at 3:24-26.

Moreover, Petitioner's alleged motivations are just the inherent, logical results of duplicating a drying tube and membrane. Put another way, redundancy and additional capacity are just the logical results of duplicating something. Petitioner does not support these alleged motivations with any factual support from Jurik or elsewhere in the prior art. Indeed, Jurik teaches away from these motivations. Instead, they arise entirely from Petitioner's conclusory expert report. Simply characterizing the "logical" result of a modification as a motivation in a conclusory expert declaration—without factual support in the prior art—is

insufficient to demonstrate a motivation to combine. *See Apple Inc. v. MPH Techs Oy*, 28 F.4th 254, 262 (Fed. Cir. 2022) (affirming conclusion that expert testimony was conclusory where it used phrases like “it would be logical” and “could be, and most logically would be”). Otherwise, every combination would become obvious because an expert can simply claim a person would have been motivated to [make a change] to [produce the logical result of that change], without any underlying evidence.

Second, in paragraph 135, Petitioner’s expert claims it would have been obvious to include a second membrane “where a separate humidity and pressure control system is connected to the base enclosure.” Petition at 49. This presupposes the result. Petitioner is just saying it would be obvious to include a second structure “where a separate [second structure]” is *already* included.

Petitioner’s expert goes on to say that there may be an inability to connect all of the enclosures together or there may be a desire to isolate the base enclosure separately. This is a clear-cut example of hindsight and using the disclosure of the ’373 patent as a roadmap. As explained above, Jurik specifically designed its luminaire to have a single “combined enclosure” that uses a single, enormous humidity control system, including the long drying tubes. *See Jurik* at 5:24-37. In fact, Jurik even goes to the trouble of defining the “phrase ‘**connected enclosures**’ [] means one or more enclosures.” *Id.* at 4:49-51 (emphasis added). Separate,

isolated enclosures is the antithesis of Jurik’s design. On the other hand, the patent at issue specifically describes isolating the airflow between the head housing and the base housing: “the pipeline 210 is provided with a blocking device 220 for selectively blocking the mutual air flow between the head housing 110 and the base housing 310.” ’373 patent at 7:29-32. Petitioner cannot rely on conclusory expert testimony to conjure up a motivation that the challenged ’373 patent expressly discloses and the prior art specifically teaches away from and avoids. That is hindsight. *See, e.g., TQ Delta*, 942 F.3d at 1361 (“We repeatedly expressed concerns that crediting such testimony risks allowing the challenger to use the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from the prior art—i.e., the impermissible *ex post* reasoning and hindsight bias that *KSR* warned against.”).

As an alternative, Petitioner submits that it would have been obvious to duplicate Jurik’s enormous membrane and drying tube because Johansen includes multiple dehumidifying devices. *See* Petition at 49-50. But this again ignores the obvious size difference between Jurik’s dehumidifying device and Johansen’s. It also ignores the fact that Jurik is specifically concerned with a luminaire with “connected enclosures”—a term Jurik defines (Jurik at 4:50).

Like with Petitioner’s combination relying on Jurik alone, is it somewhat unclear whether Petitioner proposes to duplicate only Jurik’s membrane or Jurik’s

entire dehumidifying system. If Petitioner is just relying on Jurik's membrane, as explained above, there is no teaching or suggestion that the membrane alone would work. Moreover, there would be no reason for Jurik to include its enormous drying tubes if its membrane alone were sufficient. Jurik states unequivocally that dehumidifying is accomplished by its enormous drying tubes, which "remove water vapor (or humidity) from incoming air." Jurik at 5:43-46. Thus, including "a separate dehumidifying device" (Petition at 50) in Jurik would necessarily involve duplicating Jurik's enormous drying tubes.

Petitioner suggests that duplicating a structure is automatically obvious. This is an oversimplification that deceptively assumes the only difference between Jurik and the claimed subject matter is whether the device includes one or two valves (Petition at 47-50) and one or two switches (Petition at 51). As the Federal Circuit explained in *Kimberly-Clark*, this is the wrong approach. *See Kimberly-Clark Corp. v. Johnson & Johnson*, 745 F.2d 1437, 1448-49 (Fed. Cir. 1984). There, the Court considered a similar obviousness argument based on duplication of elements and explained that it was clear error for the lower court to have "reduced the subject matter claimed to the oversimplified question of two lines versus one, apparently on a theory that [the prior art] disclosed everything except that difference . . . because it failed to deal with what is claimed." *Id.* Instead, the

“proper approach to the obviousness issue must start with the claimed invention *as a whole*.” *Id.* (emphasis in original).

Here, the claim *as a whole* recites (1) an additional temperature sensor in the base housing, (2) an additional waterproof breathable valve in the base housing, and (3) an additional switch in the base housing. ’373 patent at Claim 5.

Importantly, the switch in the base housing is capable of blocking/unblocking the additional valve “to make the internal space of the base housing in air communication with the external space of the light fixture or not.” *Id.* The specification explains that this permits “independent” sealing tests for the head and base housing. *See Id.* at 7:28-40. In other words, the base housing includes a switch capable of isolating the base housing from outside air. That is only possible in a situation where the base housing is either never in air communication with the head housing or there is some mechanism to isolate the base housing from the head housing (e.g., the blocking device 220, *id.* at 7:28-32). Otherwise, the additional switch would not be able to isolate the base housing from external air because the base housing could still exchange air externally through the (interconnected) head housing.

As explained above, however, Jurik is directed to a completely different arrangement in which all the enclosures are “connected enclosures” (Jurik at 4:50) and only a “single” dehumidifying device is used to vent air to the outside (*id.* at

3:24-26). The mere addition of a second switch and membrane would not allow the second switch to have the capability of “mak[ing] the internal space of the base housing in air communication with the external space of the light fixture or not,” as claimed (’373 patent at claim 5) because Jurik’s base enclosure would still exchange air externally through a connected enclosure. Thus, there are more differences between Jurik and the claimed subject matter than the oversimplified question of one versus two. The Board should disregard Petitioner’s oversimplification and instead follow the Federal Circuit’s advice in *Kimberly-Clark* to “start with the claimed invention *as a whole*.” *Kimberly-Clark*, 745 F.2d at 1448-49. Starting there, it’s easy to see the claimed arrangement is antithetical to Jurik’s “connected enclosures” that all rely on a “single” dehumidifying device.

For the foregoing reasons, Petitioner has failed to demonstrate that claim 5 is unpatentable.

B. Claim 7

It’s easy to recognize that Petitioner again relies on hindsight to argue that Claim 7 would have been unpatentable over Jurik. This is so because Petitioner relies on conclusory expert testimony that audaciously uses the same motivation disclosed in the ’373 patent—the challenged patent—where that motivation is not only absent from Jurik but antithetical to its teachings.

Petitioner admits that Jurik does not disclose the claimed “blocking device for selective blocking mutual air flow between the head housing and the base housing.” Petition at 57-60. Petitioner argues that adding such a blocking device would have been obvious because a “person of ordinary skill would have been motivated to do so in order to separately test the head enclosure and the base enclosure to isolate the source of any leaks to one or the other of the enclosures.” *Id.* at 57. But this motivation exists only in the ’373 patent—the challenged patent. Indeed, in the very next paragraph, Petitioner even cites to the ’373 patent’s passage that explains the claimed blocking device permits the head and base to be “independent of each other,” allowing for independent sealing tests. *See* Petition at 58 (citing ’373 patent at 7:28-42).

Petitioner’s proffered motivation is not only absent from Jurik (the only relied upon and discussed reference), but antithetical to its teachings. As discussed in the previous section in connection with claim 5, Jurik designed its luminaire to have multiple “connected enclosures [that] are vented to the outside air through each other to a single water and humidity reducing system.” Jurik at 3:24-26 (emphasis added). In fact, Jurik even defines the term “connected enclosures” (*id.* at 4:50) and extolls the benefits of having every enclosure connected, including the “ability to increase the number of enclosures [and] increase[e] the number of luminaire components that may be protected from damage or degradation . . .” *Id.*

at 4:43-49. Thus, Jurik was directed specifically to a design where all the enclosures are connected together in an *unblocked state*—i.e., capable of exchanging air between each other—so that they all benefit from a “single” (*id.* at 3:24-26) water and humidity reducing system.

Petitioner’s motivation of separately testing the head and base enclosure in Jurik is thus copied directly from the challenged patent and absent from—and antithetical to—the prior art. Petitioner’s expert supplies no evidence whatsoever from the prior art. Indeed, the expert report is practically word-for-word identical to the petition (*compare* Petition at 57-60 *with* Ex. 1004 ¶¶ 151-54) and also cites to the challenged patent—not the prior art—to support the motivation of separately testing the head and base enclosure. *See* Ex. 1004 ¶ 152. This is manifest hindsight. Petitioner cannot simply copy the challenged patent’s motivation and use it in a roadmap to reconstruct the claims. *See, e.g., In re Oetikler*, 977 F.2d 1443, 1447 (Fed. Cir. 1992) (“That knowledge can not come from the applicant’s invention itself”); *see also W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983) (“To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.”).

Patent Owner acknowledges that Federal Circuit law permits—in certain narrow cases—the motivation to combine to come from sources *other than* the prior art, such as common-sense knowledge or implicit disclosures in the prior art. But Petitioner fails to even proffer that. No case permits the motivation to be copied directly from the challenged patent. Patent Owner further submits that a motivation that is *antithetical* to the teachings of the prior art—as is the case here—would not be implicitly disclosed by the prior art or within the scope of common-sense knowledge.

Finally, irrespective of where the motivation to combine comes from, it must be supported by actual evidence. *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1334 (Fed. Cir. 2002) (“The showing of a motivation to combine must be clear and particular, and it must be supported by actual evidence.”). “Conclusory expert testimony does not qualify as substantial evidence.” *TQ Delta, LLC v. CISCO Sys., Inc.*, 942 F.3d 1352, 1358 (Fed. Cir. 2019). Here, Petitioner’s conclusory expert report simply states, without any underlying factual support or reasoning whatsoever (outside of the challenged patent), that a person would have been motivated to separately test the head and base enclosure. Ex. 1004 at ¶151.

Thus, because Petitioner’s motivation to modify Jurik comes from the challenged patent itself, is absent from and antithetical to Jurik, and is supported

only by conclusory expert testimony, Petitioner has failed to demonstrate that claim 7 would have been obvious.

C. Claim 8

Dependent claim 8⁴ recites the claimed light fixture further comprises “a temperature control system for synchronously increasing temperature inside the head housing and the base housing.” ’373 patent at claim 8. Jurik fails to disclose or render obvious such a control system that “synchronously increas[es] [the] temperature” inside the head and base housing.

1. Jurik does not render obvious claim 8 under either construction

Jurik would not have rendered obvious “synchronously increasing temperature inside the head housing and the base housing” under either (1) Petitioner’s Construction or (2) Patent Owner’s construction. Rather than rely on Jurik to teach this limitation or on Jurik for some indication of a motivation to combine, Petitioner relies entirely on conclusory expert testimony to supply the missing limitation. This is improper. Conclusory expert testimony does not

⁴ The Petition mistakenly states that this limitation is added by “[d]ependent claim 6” rather than claim 8. Petition at 60.

qualify as substantial evidence sufficient to support a finding of invalidity. *TQ Delta LLC v. CISCO Sys. Inc.*, 942 F.3d 1352, 1358 (Fed. Cir. 2019).

Petitioner’s construction merely requires increasing the temperature inside the head and base housing at the same time. But Petitioner admits Jurik does not “explicitly state that the control system 600 is configured to activate the heating elements . . . ‘at the same time.’” Petition at 64. Unable to point to any disclosure in Jurik regarding increasing the temperature in the head and base housing at the same time (Petitioner’s construction), Petitioner cites a passage in Jurik and emphasizes that Jurik teaches “performing any or all of the following actions” including activating various heat generating elements. *Id.* at 63-64 (citing Jurik at 11:35-48). But this passage merely states that multiple heat generating elements *could* be activated, not that they *would* be. As the Federal Circuit has explained, evidence regarding what “could” be done—rather than what a person of ordinary skill “would” have been motivated to do—is insufficient to demonstrate obviousness. *See TQ Delta*, 942 F.3d at 1359-60. Moreover, this passage in Jurik merely states that “any or all of” a set of actions could be performed to increase the temperature, it does not contain an indication that the actions would be performed “at the same time,” as required by Petitioner’s erroneous construction.

Beyond this minimal disclosure from Jurik, which Petitioner admits does not disclose “synchronously increasing the temperature,” Petitioner fails to point to

any factual evidence. Rather, Petitioner baldly asserts that it would have been obvious to modify Jurik to activate the heating elements in order (1) to “more evenly heat all internal areas of the connected enclosures (and avoid hot spots caused by using only one element)” and (2) “to reduce the time required to sufficiently increase the temperature inside the connected enclosures so as to adequately test the sealing performance.” Petition at 64 (citing Ex. 1004 ¶ 160). But these assertions are not supported by any factual evidence. Instead, these supposed reasons to modify Jurik appear out of thin air and are simply parroted by Petitioner’s expert, who just repeats the Petition’s asserted motivations *verbatim*. Compare Petition at 64 with Ex. 1004 ¶ 160 (word for word identical).

Patent Owner respectfully submits that Petitioner’s conclusory assertions of motivations to modify Jurik, unsupported by any factual evidence, are insufficient to demonstrate unpatentability. In *Apple*, the Federal Circuit affirmed the Board’s conclusion that expert testimony was conclusory where the expert used phrases like “would naturally have included,” “it would be logical,” and “could be, and most logically would be” with “no factual support underlying the expert testimony.” See *Apple Inc. v. MPH Techs Oy*, 28 F.4th 254, 262 (Fed. Cir. 2022). Petitioner’s expert basically does the same thing here. No factual support underlies Petitioner’s rationales for modifying Jurik: (1) more even heating and (2) quicker heating. These are just the inherent, logical results of activating multiple heating

elements. Petitioner's rationales fare no better than the phrases used in *Apple* and just like in that case, Petitioner's rationales are not supported by any factual evidence.

Patent Owner also submits that Petitioner appears to be using the '373 patent as a roadmap for claim 8. As noted above, Petitioner fails to point to anything in the prior art to support its motivation for "more even[] heating." Petition at 64. But the '373 patent expressly discloses even heating as one of the functions of its temperature control system. Indeed, the '373 patent expressly states that the temperature control system "coordinately control[s] the temperature inside the head housing and the base housing to keep the temperature therein *consistent*." '373 patent at 7:47-59 (emphasis added). Thus, producing consistent, even heating is a function disclosed by the '373 patent. But Petitioner does not point to anything in the prior art that would motivate a person of skill to modify Jurik to produce more even heating. Indeed, there is nothing in Jurik to even suggest any inadequacy in terms of heating evenness or heating speed—let alone an inadequacy that would motivate a person of skill to modify Jurik.

Accordingly, the Board should not credit the conclusory testimony of Petitioner's expert because it appears to be using the '373 patent as a roadmap. *See, e.g., TQ Delta*, 942 F.3d at 1361 ("We repeatedly expressed concerns that crediting such testimony risks allowing the challenger to use the challenged patent

as a roadmap to reconstruct the claimed invention using disparate elements from the prior art—i.e., the impermissible *ex post* reasoning and hindsight bias that *KSR* warned against.”).

Finally, as explained above in Section II.B, the proper construction for “synchronously increasing temperature” means increasing the temperature in the head and base housing *at the same speed*, as opposed to merely at the same time as Petitioner proposes. Patent Owner’s construction is required by the ’373 patent specification, which refers to “[in]consistent” temperature between the two housings as “asynchronous” (’373 patent at 7:47-59 (emphasis added)) and is also the ordinary meaning of “synchronously increasing.” *See* discussion *supra* Section II.B.

Jurik fails to render obvious claim 8 even under Petitioner’s broader construction, which only requires increasing the temperature in the base and head housing at the same time. Under Patent Owner’s construction, which requires increasing the temperature at the *same speed*, Petitioner’s showing is even more inadequate. In fact, as discussed in the next section, Petitioner appears to concede validity under Patent Owner’s construction because the Petitioner considers Patent Owner’s construction and does not assert invalidity under that construction.

Therefore, the Board should confirm claim 8 as patentable.

2. Petitioner has waived any argument that Jurik renders obvious claim 8 under Patent Owner’s construction

Petitioner appears to concede the patentability of claim 8 under Patent Owner’s construction. The Petition does not argue or even assert that Jurik renders obvious claim 8 under Patent Owner’s construction. Indeed, the entirety of Petitioner’s remarks regarding claim 8 concern its broader and erroneous construction for “synchronously,” which merely requires increasing the temperature “at the same time”—rather than “at the same speed.” *See* Petition at 60-65.

To the extent Petitioner attempts to assert that Jurik renders obvious claim 8, even under Patent Owner’s construction, the Board should exercise its discretion and refuse to consider any such arguments and evidence.⁵ In the Petition, Petitioner considered, discarded, and declined to present arguments and evidence under Patent Owner’s construction. The Petition states that a “more particular meaning of ‘synchronously’ [], such as constantly maintaining equal temperature in the base housing and the head housing” is not the appropriate construction.

⁵ It almost goes without saying that Petitioner “may not in reply rely on new prior art to teach a claim limitation.” *Axonics, Inc. v. Medtronic, Inc.*, 75 F.4th 1374, 1383 (Fed. Cir. 2023).

Petition at 62. Petitioner's discarded construction is encompassed by Patent Owner's construction. Indeed, increasing the temperature in the head and base housing while also "maintaining equal temperature," as in Petitioner's considered and discarded construction, would necessarily result in increasing the temperature at the same speed (Patent Owner's construction).

Thus, Petitioner voluntarily waived its opportunity to assert Jurik renders claim 8 obvious under Patent Owner's construction. It affirmatively declined to do so after considering, discarding, and choosing not to assert invalidity under the proper construction. Petitioner should therefore not be allowed to assert obviousness of claim 8 over Jurik under Patent Owner's construction for the first time in reply.

D. Claims 12 and 13

Claims 12 and 13 depend directly from claim 5 and are thus not obvious over Jurik, or alternatively, obvious over Jurik in view of Johansen for the same reasons identified above with respect to claim 5. *See* Section III.A.

IV. CONCLUSION

The Petition fails to meet its burden of establishing the unpatentability of claims 5, 7, 8, 12, and 13 of the '373 patent. Petitioner repeatedly uses the '373 patent as a roadmap and relies on conclusory expert testimony in lieu of actual evidence to support obviousness. Patent Owner respectfully submits claims 5, 7, 8,

12, and 13 should be found not unpatentable over the grounds raised in the
Petition.

Respectfully Submitted,

Dated: February 23, 2026

By: /P. Andrew Riley/
P. Andrew Riley
Lead Counsel

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(b)(2), the undersigned hereby certifies that the foregoing PATENT OWNER'S RESPONSE TO PETITION contains 7,059 words, excluding parts exempted under § 42.24(a), as measured by the word-processing system used to prepare this paper.

Date: February 23, 2026

Respectfully submitted,

By: /P. Andrew Riley/
P Andrew Riley
Lead Counsel

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e), the undersigned certifies that on February 23, 2026, a copy of the foregoing **PATENT OWNER'S RESPONSE TO PETITION** and associated Exhibits 2001 and 2002 were served by electronic mail on Patent Owner at the following addresses:

HouPatMail@conleyrose.com
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Date: February 23, 2026

Respectfully submitted,

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