

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA

FUMA INTERNATIONAL LLC, an)
Ohio limited liability company,)
)
Plaintiff/Counterdefendant,)
)
v.)
)
R.J. REYNOLDS VAPOR)
COMPANY, a North Carolina)
corporation)
)
Defendant/Counterplaintiff.)

1:19-CV-260

1:19-CV-660

CLAIM CONSTRUCTION ORDER

This matter is before the Court for claim construction of terms. The parties, plaintiff Fuma International LLC and defendant R.J. Reynolds Vapor Company, have numerous disputes over terms that appear in Claims 1, 6, 12, and 14 of U.S. Patent No. 9,532,604 (the “604 patent,” Doc. 1-1) and Claims 1, 8, and 16 of U.S. Patent No. 10,334,881 (the “881 patent,” Doc. 76-3).

For most of the terms whose construction are at issue, both parties urge the Court to adopt the terms’ “ordinary meaning.” But they disagree on what that “ordinary meaning” is. RJR has dealt with this problem by suggesting constructions to supplement, clarify, or interpret “ordinary meaning,” while Fuma says it is enough for the Court to construe the claim language as having an “ordinary meaning.”

Interpretation of language in patent claims “is an issue for the judge, not the jury.” *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391 (1996). In fulfilling this task,

courts are to give the words of a claim “their ordinary and customary meaning” as understood by “a person of ordinary skill in the art in question at the time of the invention.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005). When the parties agree that a claim term has an ordinary meaning, but reliance on the ordinary meaning does not resolve the parties’ dispute, “claim construction requires the court to determine what claim scope is appropriate in the context of the patents-in-suit.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1361 (Fed. Cir. 2008); see *X One, Inc. v. Uber Techs., Inc.*, No. 16-CV-06050-LHK, 2020 WL 746127, at *9 (N.D. Cal. Feb. 12, 2020) (finding term had an ordinary meaning but construing the term because the parties disagreed over the ordinary meaning). In determining the proper construction of the claim terms, courts should principally rely upon intrinsic evidence: the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1314–17. While a court may also rely on extrinsic evidence where appropriate when construing terms, it is of less significance than intrinsic evidence. *Id.* at 1317.¹

¹ Unlike other forms of extrinsic evidence, dictionaries can be especially useful for construing terms and may be consulted at any time to aid in determining the “ordinary meaning” of claim terms. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (collecting cases); see *Phillips*, 415 F.3d at 1322–23 (noting that dictionary definitions can be helpful in some circumstances when construing claims). However, no extrinsic evidence may be used “for the purpose of varying or contradicting the terms of the claims.” *Markman*, 52 F.3d at 981. The Court omits internal citations, alterations, and quotation marks throughout this opinion, unless otherwise noted. See *United States v. Marshall*, 872 F.3d 213, 217 n.6 (4th Cir. 2017).

“SOLUTION HOLDING MEDIUM”

Disputed Claim Term or Phrase	Fuma’s Proposed Construction	RJR’s Proposed Construction	Court’s Construction
“solution holding medium” ‘604 patent, col. 17:39–42 (Claim 1) ‘881 patent, col. 17:38–39, 46, 52 (Claim 1); col. 19:23–24, 66 (Claim 16)	A location in the interior of the housing where solution is stored, including but not limited to at least one of an absorbent material, a chamber, a reservoir, a capsule, or any combination thereof.	A container or other mechanism for holding solution in the cartridge	A location, container, or mechanism to hold the solution, including but not limited to at least one of an absorbent material, a chamber, a reservoir, a capsule, or any combination thereof.

The meaning of this term is clear when read in the context of the various claims, and the constructions offered by the parties do not differ in any meaningful way. No extrinsic evidence is necessary.

The “solution” is a liquid, *e.g.*, (‘881 patent, col. 1:23–26), and there must be some sort of container, mechanism, or enclosed location or space to hold the liquid solution so that it can be vaporized and inhaled. Whether one calls this a “location” or a “container” or a “mechanism” does not seem to be materially or meaningfully different within the context of the intrinsic evidence, and if it is, the parties have not explained how or why those terms would mean different things to a person skilled in the art.

Fuma’s construction requires the “location” to be “in the interior of the housing where solution is stored,” but the requirement that it be “in the interior” is unnecessary to

claim construction. Each claim where the disputed phrase is used already requires the “solution holding medium” to be in the interior of the housing. (‘604 patent, col. 17:21, 39–43; col. 18:42–43); (‘881 patent, col. 17:21, 38–40; col. 19:23–25).

RJR’s construction requiring the “container or other mechanism” to be “in the cartridge” is similarly unnecessary, as each claim where the disputed phrase is used already requires the “solution holding medium” to be “in the cartridge.” (‘604 patent, col. 17:21, 39–40; col. 18:27–28, 42); (‘881 patent, col. 17:21, 38–39; col. 19:20–24).

Claim 2 of the ‘604 patent explicitly says, and only says, that the “solution holding medium includes at least one of an absorbent material, a chamber, a reservoir, a capsule, or any combination thereof.” (‘604 patent, col. 17:55–58). Claim 2 of the ‘604 patent is dependent on—and thus must be narrower than—Claim 1. *See AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234, 1242 (Fed. Cir. 2003) (“Under the doctrine of claim differentiation, dependent claims are presumed to be of narrower scope than the independent claims from which they depend.”). So the term “solution holding medium” in Claim 1 must be broader than the listed examples in Claim 2, whether such examples are read alone or in combination. Similar language is used in dependent claims in the ‘881 patent. (‘881 patent, col. 18:9–11; col. 20:34–36). Fuma’s construction of the “solution holding material” as “including but not limited to . . . an absorbent material, a chamber, a reservoir, a capsule, or any combination thereof” thus seems fair. The fact that the specification occasionally uses narrower language does not limit the claim. *See Phillips*, 415 F.3d at 1323 (noting that “although the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the

claims to those embodiments” and collecting cases); *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1340 (Fed. Cir. 2001) (characterizing it as a “cardinal sin[] of patent law” to “read[] a limitation from the written description into the claims”).

In that same context, construing the term to include the word “location” also seems fair, though the word “container” in RJR’s construction is easily understood to mean the same thing. If by the word “container” RJR means that there must be a separate container inside the interior of the housing other than the housing itself, appropriately adapted to hold the solution, nothing in the language of the claim supports that overly limiting construction.

Neither party has explained why it matters whether the term is construed to mean the place where the solution is “stored” as opposed to “held,” and there is no reason to think those words mean anything different in the overall context of the patent language. The term itself says “holding,” and the language of the ‘881 patent refers to the “solution holding medium” as “holding” or “containing” the solution. (‘881 patent, col. 17:38–40, 51–52; col. 19:23–24). There is no reason to use the word “store.”

“ELECTRICALLY CONDUCTIVE THREADED PORTION”

Disputed Claim Term or Phrase	Fuma’s Proposed Construction	RJR’s Proposed Construction	Court’s Construction
the power source includes an electrically conductive threaded portion ‘604 patent, col. 17:18–20 (Claim 1). the housing includes an electrically conductive threaded portion that is adapted to mechanically and electrically couple to the electrically conductive threaded portion of the power source ‘604 patent, col. 17:34–38 (Claim 1). the housing includes an electrically conductive threaded portion that is configured to mechanically and electrically couple to a further electrically conductive threaded portion in operative connection with a power source ‘604 patent, col. 18:49–54 (Claim 12)	Ordinary meaning.	The ordinary meaning of this phrase requires a construction to assist the jury, as follows: The power source and the cartridge housing include electrically conductive threads that fasten the power source to the cartridge and through which electrical current flows	Electrically conductive portion that is threaded

In relevant part, Claim 1 of the ‘604 patent claims “[a]n apparatus comprising a power source, wherein the power source includes a battery [and] . . . an electrically conductive threaded portion; and a cartridge having a housing . . . wherein the first end of the housing includes an electrically conductive threaded portion that is adapted to mechanically and electrically couple to the electrically conductive threaded portion of the power source.” (‘604 patent, col. 17:16–21, 34–38). Claim 12 of the ‘604 patent claims an apparatus comprising an “electronic cigarette cartridge, wherein the electronic cigarette cartridge includes a housing . . . wherein the first end of the housing includes an electrically conductive threaded portion that is configured to mechanically and electrically couple to a further electrically conductive threaded portion in operative connection with a power source.” (‘604 patent, col. 18:27–28, 49–53). Asserted claims 4, 6, 14, 16, and 18 of the ‘604 patent do not explicitly contain the phrase “electrically conductive threaded portion,” but as they are all dependent claims of independent claims 1 and 12, they “incorporate by reference all of the limitations of the claim[s] to which [they] refer[.]” *Monsanto Co. v. Syngenta Seeds, Inc.*, 503 F.3d 1352, 1357–58 (Fed. Cir. 2007) (citing 35 U.S.C. § 112).

The dispute between the parties is over whether the phrase “electrically conductive threaded portion” means: 1) the threads are electrically conductive, or 2) the portion is electrically conductive and has threads. *Compare* Doc. 82 at 14–19 *with* Doc. 83 at 12–15. In other words, do the words “electrically conductive” modify the word “threaded” or the word “portion”? Each party insists that its interpretation is the “ordinary meaning.”

The Court adopts Fuma’s construction: it gives meaning to every word. In contrast, RJR’s construction makes the word “portion” extraneous by essentially construing the term to mean “electrically conductive threads.” Such constructions are disfavored. *See Merck & Co., Inc. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005). This is particularly inappropriate when the word that becomes extraneous is the noun, as an adjective by definition modifies or describes a noun or pronoun, rather than replacing it. THE CHICAGO MANUAL OF STYLE ONLINE, § 5.68, <https://www.chicagomanualofstyle.org/book/ed17/part2/ch05/psec068.html> (“An adjective is a word . . . modifying a noun or pronoun; it is often called a *describing word*.”).² Nothing in the claim language, specification, or prosecution history supports RJR’s contention that the threads must be electrically conductive.

At the claim construction hearing, it appeared there was some confusion and disagreement over the meaning of the word “portion,” but this dispute was not briefed and the Court declines to address it here. Should an additional construction become necessary, the parties can address it at summary judgment or other appropriate time.

² Neither party has identified or provided a citation to any potentially applicable grammar rule or rule of construction, relying instead on assertions. *See, e.g.*, Doc. 89 at 10 (RJR’s assertion that “the claims repeatedly require ‘an electrically conductive threaded portion,’ meaning the threaded portion must conduct electricity”); Doc. 83 at 12 (Fuma’s assertion that “‘electrically conductive’ and ‘threaded’ are both modifiers of the noun ‘portion’”). As best the Court can tell, this is a variation of the “coordinate adjective” problem. Ordinarily, a comma would be needed in order to read the phrase with Fuma’s proposed construction. But a comma is not necessary when, as here, the second modifier—the word “threaded”—combines with the noun to form a unit “threaded portion.” *See, e.g.*, TEXAS LAW REVIEW MANUAL ON USAGE & STYLE § 1.17 (12th ed. 2012); *see also Liquid Dynamics Corp. v. Vaughan Co.*, 355 F.3d 1361, 1368 (Fed. Cir. 2004) (in construing the term “substantial helical flow,” treating “helical flow” as a unit and the “substantial” as modifying the phrase “helical flow”).

“ELECTRICALLY CONDUCTIVE PORTION”

Disputed Claim Term or Phrase	Fuma’s Proposed Construction	RJR’s Proposed Construction	Court’s Construction
the power source includes an electrically conductive portion / the housing includes an electrically conductive portion that is adapted to mechanically and electrically couple to the electrically conductive portion of the power source ‘881 patent, col. 17:19–20, 34–37 (Claim 1). the housing having an electrically conductive portion adapted to mechanically and electrically couple to the electrically conductive portion of the power source ‘881 patent, col. 18:27–30 (Claim 8). the housing having an electrically conductive portion adapted to mechanically and electrically couple to an electrically conductive portion of the power source ‘881 patent, col. 19:32–35 (Claim 16).	Ordinary meaning.	The ordinary meaning of this phrase requires a construction to assist the jury, as follows: The power source and cartridge housing include electrically conductive portions that fasten the power source to the cartridge and through which electrical current flows	Ordinary meaning: “A portion that is electrically conductive.”

The ‘881 patent claims, in Claim 1, “an apparatus comprising: a power source, . . . wherein the power source includes an electrically conductive portion; and a cartridge having a housing that comprises an interior, . . . wherein the first end of the housing includes an electrically conductive portion that is adapted to mechanically and electrically couple to the electrically conductive portion of the power source.” (‘881 patent, col. 17:16–21, 34–37). It also claims, in Claim 8, “a cartridge configured to mechanically and electrically couple to a power source of an electronic vaporizer, the cartridge comprising . . . a housing [and] . . . the first end of the housing having an electrically conductive portion adapted to mechanically and electrically couple to the electrically conductive portion of the power source.” (‘881 patent, col. 18:19–30). In Claim 16, the ‘881 patent claims “a cartridge configured to mechanically and electrically couple to a power source of an electronic vaporizer, the cartridge comprising: a housing [and] . . . the first end of the housing having an electrically conductive portion adapted to mechanically and electrically couple to an electrically conductive portion of the power source.” (‘881 patent, col. 19:20–35).

The Court construes this term to have its ordinary meaning. RJR’s construction is overly complicated and unnecessary.

“HEATING ELEMENT COMPRISES A WICKING MATERIAL”

Disputed Claim Term or Phrase	Fuma’s Proposed Construction	RJR’s Proposed Construction	Court’s Construction
the heating element comprises a wicking material ‘604 patent, col. 18:8–10 (Claim 6); col. 18:62–65 (Claim 14).	Ordinary meaning	The component generating heat is constructed from a wicking material	Ordinary meaning: The heating element comprises a wicking material.

In Claim 6, the ‘604 patent claims “[t]he apparatus according to claim 2, wherein the heating element comprises a wicking material to attract the solution from the solution holding medium to the heating element.” (‘604 patent, col. 18:8–10). In Claim 14, the ‘604 patent claims “[t]he apparatus according to claim 12, wherein the heating element comprises a wicking material that is configured to attract the solution from the solution holding medium.” (‘604 patent, col. 18:62–65). The parties disagree about the construction of the phrase “the heating element comprises a wicking material.”

RJR’s contention that this means “the component generating heat is constructed from a wicking material,” Doc. 82 at 37, is not consistent with the ordinary meaning of the claim read as a whole. Claim 6 explicitly differentiates between the heating element and the wicking material, (‘604 patent, col. 18:8–10), making it clear that they are not identical, and that is implicit in Claim 14 as well. The specifications are consistent with this construction. (‘604 patent, cols. 5:48–52, 6:43–46). It is clear that the wicking material facilitates the movement of the solution from the holding medium to the heating element, but there is no requirement that the wicking material itself generate heat.

Moreover, “comprising” is “a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.” *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501 (Fed. Cir. 1997). RJR’s reading is inconsistent with this meaning. The wicking material is an essential part of the heating element as a whole, but the wick itself does not have to be the heating element.

**“HEATING ELEMENT . . . CONFIGURED TO VAPORIZE AT LEAST A PORTION
OF THE SOLUTION TO BE CONTAINED IN THE SOLUTION HOLDING MEDIUM”**

Disputed Claim Term or Phrase	Fuma’s Proposed Construction	RJR’s Proposed Construction	Court’s Construction
wherein the heating element is electrically configured to vaporize at least a portion of the solution to be contained in the solution holding medium ‘881 patent, col. 17:50–52 (Claim 1). the heating element being electrically configured to vaporize at least a portion of the solution to be contained in the solution holding medium reservoir ‘881 patent, col. 18:45–48 (Claim 8). the heating element being electrically configured to vaporize at least a portion of the solution to be contained in the solution holding medium ‘881 patent, col. 19:63–66 (Claim 16).	Ordinary meaning	The ordinary meaning of this phrase requires a construction to assist the jury, as follows: The heating element vaporizes the solution while the solution is in the solution holding medium	Ordinary meaning. The solution can be, but need not be, in the solution holding medium when vaporized by the heating element.

In Claim 1, the ‘881 patent claims an apparatus comprising a power source and “a cartridge having a housing . . . wherein the heating element is electrically configured to

vaporize at least a portion of the solution to be contained in the solution holding medium.” (‘881 patent, col. 17:21, 50–52). Claim 8 of the patent claims a cartridge comprising a heating element, and “the heating element being electrically configured to vaporize at least a portion of the solution to be contained in the solution holding medium reservoir.” (‘881 patent, col. 18:45–48). In Claim 16, the ‘881 patent claims a cartridge comprising a heating element, and “the heating element being electrically configured to vaporize at least a portion of the solution to be contained in the solution holding medium.” (‘881 patent, col. 19:63–66). The parties disagree about the construction of the phrase “the heating element . . . configured to vaporize at least a portion of the solution to be contained in the solution holding medium.”

The Court is confused by Fuma’s argument that RJR’s construction of the ‘881 patent is inconsistent with at least one of the embodiments of claims in the ‘604 patent. *See* Doc. 83 at 21–22 (referring on page 22 to “the aforementioned embodiment” with all preceding embodiments on page 21 referring to the ‘604 patent); Doc. 90 at 23–24 (same). This argument is neither clear nor helpful.

Nonetheless, the Court agrees with Fuma that RJR’s construction goes beyond the plain language of the claim by requiring that the solution must be vaporized while it is in the solution holding medium. Certainly the claims cover vaporizing the solution while it is in the solution holding medium, but the words of the claim do not say the solution *must* be in the solution holding medium when it is vaporized. And while RJR contends that the embodiments in the specification of the ‘881 patent confirm its construction, Doc. 82 at 31–34, the plain language of the claims does not impart a limitation that the solution

must be in the solution holding medium when it is vaporized. *See Unwired Planet, LLC v. Apple Inc.*, 829 F.3d 1353, 1358–59 (Fed. Cir. 2016) (noting that limitations present in the embodiments do not limit claims beyond their plain meaning). Claim construction is not a mechanism for reading limitations into a claim that are not present in the claim itself. *N. Telecom Ltd. v. Samsung Elecs. Co., Ltd.*, 215 F.3d 1281, 1290–91 (Fed. Cir. 2000).

**“AIRFLOW PASSAGEWAY THAT EXTENDS CENTRALLY AND AXIALLY
... INTERMEDIATE OF THE FIRST APERTURE ... AND THE SECOND
APERTURE”**

Disputed Claim Term or Phrase	Fuma’s Proposed Construction	RJR’s Proposed Construction	Court’s Construction
an airflow passageway that extends centrally and axially with respect to the housing intermediate of the first aperture on the first end of the housing and the second aperture on the second end of the housing; wherein the airflow passageway is configured to allow an airflow through the cartridge from the first aperture to the second aperture of the housing. ‘604 patent, col. 17:26–33 (Claim 1); ‘881 patent, col. 17:26–33 (Claim 1). an airflow passageway that extends intermediate of the first end and the second end axially through the interior of the housing along a central longitudinal axis of the housing, wherein the airflow passageway enables airflow from the first end to the second end.	Ordinary meaning	The ordinary meaning of this phrase requires a construction to assist the jury, as follows: The airflow passageway extends in a straight path through the center of the cartridge from a first opening on the first end to a second opening on the opposite end of the cartridge.	The airflow passageway extends in a straight path through the center of the cartridge from a first opening on the first end to a second opening on the opposite end of the cartridge.

‘604 patent, col. 18:36–41 (Claim 12). an airflow passageway in the interior of the housing extending centrally and axially with respect to the housing intermediate of the first aperture on the first end of the housing and the second aperture on the second end of the housing, the airflow passageway being configured to allow an airflow through the cartridge from the first aperture to the second aperture of the housing. ‘881 patent, col. 18:31–38 (Claim 8). an airflow passageway in the interior of the housing, the airflow passageway having a length extending centrally and axially with respect to the housing intermediate of the first aperture on the first end of the housing and the second aperture on the second end of the housing, the airflow passageway being configured to allow an airflow through the cartridge from the first aperture to the second aperture of the housing			
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'881 patent, col. 19:37–44 (Claim 16).			
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Claims 1 of the '604 and '881 patents claim an apparatus comprising a cartridge with a housing that includes “an airflow passageway that extends centrally and axially with respect to the housing intermediate of the first aperture on the first end of the housing and the second aperture on the second end of the housing, wherein the airflow passageway is configured to allow art [sic] airflow through the cartridge from the first aperture to the second aperture of the housing.” ('604 patent, col. 17:26–33; *see also* '881 patent, col. 17:26–33). Claim 12 of the '604 patent claims an apparatus comprising an electronic cigarette cartridge with a housing that includes “an airflow passageway that extends intermediate of the first end and the second end axially through the interior of the housing along a central longitudinal axis of the housing, wherein the airflow passageway enables airflow from the first end to the second end.” ('604 patent, col. 18:36–41). Claim 8 of the '881 patent claims a cartridge comprising “an airflow passageway in the interior of the housing extending centrally and axially with respect to the housing intermediate” of the first and second apertures. ('881 patent, col. 18:31–38). Finally, Claim 16 of the '881 patent claims a cartridge with “an airflow passageway in the interior of the housing, the airflow passageway having a length extending centrally and axially with respect to the housing intermediate of” the first and second aperture. ('881 patent, col. 19:37–44).

The parties disagree about the meaning of “centrally and axially” and “axially . . . along a center axis,” as well as about whether the airflow passageway must span the

length of the cartridge from the first aperture to the second aperture. There is nothing to indicate that these words or terms have a particular meaning in a field of art, and like other words with a directional meaning, their ordinary meaning is apparent. *See Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 805 (Fed. Cir. 2007) (construing the word “curved”).

The Court agrees with the parties that these terms can be given their ordinary meaning and concludes that their ordinary meaning is fairly expressed by the supplemental language suggested by RJR.

The word “centrally” has an easily understandable meaning: “[i]n a central position or location.”³ *See n. 1 supra*. The word “axially” in its ordinary meaning contemplates a straight line travelling along the axis of the housing,⁴ and that is how the specifications are drawn. *See, e.g.*, (‘604 patent, Fig. 1; ‘881 patent, Fig. 1). If this was not clear, the claims themselves describe the cartridge housing as a cylindrical device with a “central longitudinal axis” that extends through the airflow passageway. (‘604 patent, col. 17:60–66); *see also* (‘881 patent, col. 19:20–36). Nothing in the specification or claim language indicates the passageway can be crooked, zig-zag, or anything other than generally straight. Nor is there any indication that these terms as used in the claims were given a meaning that deviates from the plain meaning. *See CCS Fitness, Inc. v.*

³ *Centrally*, OXFORD ENGLISH DICTIONARY, <https://www.oed.com/view/Entry/29693?redirectedFrom=centrally#eid> (2020).

⁴ *See Axially*, OXFORD ENGLISH DICTIONARY, <https://www.oed.com/view/Entry/14025?redirectedFrom=axially#eid> (2020) (“In the direction of the axis.”); *Axis, n.1*, OXFORD ENGLISH DICTIONARY, <https://www.oed.com/view/Entry/14054?rskey=ZNiAbl&result=1#eid> (2020) (“The straight line about which parts of a body or system are symmetrically arranged A straight line from pole to pole.”).

Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002) (“[A] claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term.”).

While the Court agrees with Fuma that the terms “centrally and axially” and “axially . . . along a center axis” need not be applied with absolute mathematical precision, *see* (‘604 patent, col. 4:32–34; 6:18–21) (specification indicating Fuma did not intend for these terms to imply exactitude); (‘881 patent, col. 6:19–22) (same), the specification and claims themselves make clear that the airflow passageway is straight and extends along the center axis of the housing. *See Chih-Wen Chung v. Bed Bath & Beyond, Inc.*, No. EP-09-CV-330-FM, 2011 WL 6439352, at *20 (W.D. Tex. July 1, 2011) (Maj. J., Report and Recommendation), *adopted*, 2011 WL 6967991 (W.D. Tex. Dec. 20, 2011) (noting that the axis of a cylindrically shaped body is a straight line joining the centers of two ends of the main body, but does not require exact symmetry).

Read in context, the claims also make clear that the airflow passageway must run all the way from the first aperture on the first end of the cartridge to the second aperture on the second end of the cartridge. For example, in Claim 12 of the ‘604 patent, the purpose of the airflow passageway is to “enable[] airflow from the first end to the second end,” (‘604 patent, col. 18:36–41), making it clear that the airflow passageway extends from the first end to the second end. The specifications are consistent with this construction, and the Court does not understand this construction to exclude any embodiment shown in the specifications. For example, in Figure 2 of the ‘604 and ‘881 patents, the airflow passageway is depicted by the dashed lines as extending through the

“gap” to the second aperture, which is consistent with the Court’s construction. While “intermediate” on its own does not dictate that the airflow passageway must extend the full length of the housing, the term cannot be read in isolation from the rest of the claim language or the specification. *Phillips*, 415 F.3d at 1313–15 (“[Courts] cannot look at the ordinary meaning of the term . . . in a vacuum.”). When read in context, the patents clearly reach an airflow passageway that extends centrally and axially from one aperture to the other.

It is **SO ORDERED** that for purposes of this litigation, the disputed term:

1. “Solution holding medium” as found in Claim 1 of the ‘604 patent and Claims 1 and 16 of the ‘881 patent is construed to have the meaning: “A location, container, or mechanism to hold the solution, including but not limited to at least one of an absorbent material, a chamber, a reservoir, a capsule, or any combination thereof;”
2. “Electrically conductive threaded portion” as found in Claims 1 and 12 of the ‘604 patent is construed to have the meaning: “Electrically conductive portion that is threaded;”
3. “Electrically conductive portion” as found in Claims 1, 8, and 16 of the ‘881 patent is construed to have an ordinary meaning: “A portion that is electrically conductive;”

4. “The heating element comprises a wicking material” as found in Claims 6 and 14 of the ‘604 patent is construed to have an ordinary meaning: “The heating element comprises a wicking material;”
5. “The heating element . . . configured to vaporize at least a portion of the solution to be contained in the solution holding medium” as found in Claims 1, 8, and 16 of the ‘881 patent is construed to have an ordinary meaning: “The solution can be, but need not be, in the solution holding medium when vaporized by the heating element;”
6. “An airflow passageway that extends centrally and axially with respect to the housing intermediate of the first aperture on the first end of the housing and the second aperture on the second end of the housing” as found in Claims 1 and 12 of the ‘604 patent and Claims 1, 8, and 16 of the ‘881 patent is construed to have the meaning: “The airflow passageway extends in a straight path through the center of the cartridge from a first opening on the first end to a second opening on the opposite end of the cartridge.”

This the 23rd day of March, 2020.


UNITED STATES DISTRICT JUDGE