

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AROMA360, LLC,

Petitioner,

v.

AIR ESSSENTIALS, INC.,

Patent Owner.

Case IPR 2025-00705
U.S. Patent No. 9,527,094

PATENT OWNER'S
CONTINGENT MOTION TO AMEND

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
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I. INTRODUCTION

Patent Owner, Air Essentials, Inc., respectfully moves under 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121 to conditionally amend challenged independent claim 7 of the '094 patent. In the event the Board finds all of claims 7-9 and 11 (“the challenged MTA claims”) of the '094 Patent unpatentable, Patent Owner respectfully requests that the Board grant this Revised Contingent Motion to Amend (“this Motion”) with respect to the corresponding proposed substitute claim. Accordingly, this Motion is contingent upon a determination of unpatentability of the challenged MTA claims.

As shown below, this Motion and the substitute claim meets all requirements of 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121. *See also Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, -01130, Paper 15 at 4 (PTAB Feb. 25, 2019) (precedential). Specifically, the substitute claim is i) presented in a claim listing; ii) reasonable in number; iii) responsive to a ground of unpatentability involved in the trial; iv) non-broadening; and v) supported by the written description. *Id.* at 4-8. Moreover, the motion confirms (hereby and as explained below) Patent Owner’s belief that the proposed substitute claim is patentable over all known prior art, whether alone or in combination. Having met its burdens, Patent Owner respectfully submits that it is entitled to the contingent substitute claim unless Petitioner “prove[s] all propositions

of unpatentability.” *Aqua Products v. Matal*, 872 F.3d 1290, 1310 (Fed. Cir. 2017)(en banc).

II. STATEMENT OF RELIEF REQUESTED

This Motion is contingent upon the Board’s finding that claims 7-9 and 11 of the ‘094 Patent are found unpatentable. In such an event, Patent Owner moves to substitute independent claim 7 with its substitute claim presented herein.

III. THE SUBSTITUTE CLAIMS SATISFY 37 C.F.R. § 42.121(a)

a. The Substitute Claims are Non-Broadening

As shown in the attached appendix, the proposed substitute claim only adds non-broadening limitations which do not enlarge the scope of the corresponding original claim. On the contrary, the newly included recitation further specifies the scope of the original claim.

b. The Substitute Claims are Responsive to a Ground of Unpatentability

Patent Owner does not concede that the currently issued claims of the ‘094 Patent are rendered obvious by the asserted prior art. The proposed amendments further amplify distinctions between the asserted references and the ‘094 Patent.

Petitioner has alleged that Claims 7-9 and 11 are unpatentable under 35 U.S.C. § 103 on the following grounds:

Ground 1: Sevy

Ground 2: Sevy in view of Zeng

Ground 3: Goubet

Ground 4: Goubet in view of Kaiser

Ground 5: Gao

Ground 6: Gao in view of Zeng

This Motion proposes amendments to independent claim 7 that are responsive to Petitioner’s grounds in the instant proceeding in that they further clarify the structure and function of the silencer assembly and its components. None of the asserted references, individually or in combination, disclose or render obvious a silencer assembly that implements the recited claim features.

Moreover, it is not necessary “that every word added to or removed from a claim in a motion to amend must be solely for the purpose of overcoming an instituted ground.” *Veeam Software Corp. v. Veritas Techs., LLC*, IPR2014-00090, Paper 48 at 28 (Jul. 17, 2017). Rather, the question is whether “the proposed claim as a whole is ‘responsive to a ground of unpatentability involved in the trial.’” *Id.* at 29. Beyond that threshold, Patent Owner may add other amendments that “serve[] the public interest by ensuring issuance of valid and clear patents,” including “additional limitations to address potential ... § 112 issues.” *Id.*

c. The Substitute Claims are Reasonable in Number

Patent Owner proposes only one substitute claim per 37 C.F.R. § 42.121(a)(3).

IV. THE SUBSTITUTE CLAIMS SATISFY 37 C.F.R. § 42.121(b)
a. The Substitute Claims are Presented in a Claim Listing

As required by 37 C.F.R. § 42.121(b), this motion is accompanied by an appendix that lists the proposed substitute claims and clearly shows the proposed amendments to the claims in light of the corresponding original claims.

b. The Substitute Claims are Supported by the Original and Earlier Filed Disclosures for Each Claim

Pursuant to 37 C.F.R. § 42.121(b)(1) and (b)(2), the table below demonstrates that each substitute claim is supported by each earlier-filed disclosure as to which the benefit of the filing date is sought.¹ The '094 Patent issued from U.S. Application Serial No. 14/844,650, and is a continuation of U.S. Application Serial No. 13/838,364 (Exhibit 1005), which in turn claimed the benefit of U.S. Provisional Application Serial No. 61/694,500 (Exhibit 1006).

Claim Recitation	Exemplary Support from 61/694,500	Exemplary Support from 13/838,364
A fluid dispersion assembly is operatively interconnected to a container of an operative fluid and a compressed air source to generate and discharge a fluid dispersion into a surrounding airspace,	Ex. 1006, page 21, line 23 – page 22, line 8; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1005, page 6, line 21 – page 7, line 3; Ex. 1005, page 8, lines 20-24; Ex. 1005, pages 28-29, Figures 1-2.

¹ The citations to the disclosure are not considered exhaustive nor meant to limit the meaning or construction of the corresponding claim terms.

said fluid dispersion assembly comprising:		
a diffusion unit at least partially defining a diffusion chamber,	Ex. 1006, page 22, lines 17-22; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1005, page 7, lines 16-21; Ex. 1005, pages 28-29, Figures 1-2.
a discharge port disposed in fluid communication between said diffusion chamber and the surrounding airspace,	Ex. 1006, page 23, lines 20-24; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1005, page 18, lines 5-10; Ex. 1005, pages 28-29, Figures 1-2.
a diffusion assembly disposed in an operative engagement with said diffusion unit,	Ex. 1006, page 19, line 21 – page 20, line 5; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1005, page 5, lines 2-3; Ex. 1005, pages 28-29, Figures 1-2.
wherein said diffusion assembly comprises an atomizer assembly, and	Ex. 1006, page 20, lines 5-6; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1005, page 5, lines 11-12; Ex. 1005, pages 28-29, Figures 1-2.
a silencer assembly having a silencer chamber, silencer inlet, a silencer outlet, and a baffle, said baffle being disposed within said silencer chamber,	Ex. 1006, page 30, lines 4-5; Ex. 1006, pages 13-14, Figures 1-2.	Ex. 1005, page 18, lines 16-18; Ex. 1005, pages 28-29, Figures 1-2.
wherein said baffle partially disrupts movement of the fluid dispersion through said silencer chamber from said silencer inlet to said silencer outlet, thereby dampening sound waves generated during operation of said fluid dispersion assembly, and	Ex. 1006, page 30, lines 6-9; Ex. 1006, pages 13-14, Figures 1-2.	Ex. 1005, page 18, lines 18-20; Ex. 1005, pages 28-29, Figures 1-2.

wherein said silencer inlet is disposed relative to the baffle to substantially direct the movement of the fluid dispersion towards said baffle before said fluid dispersion exits said silencer chamber through said fluid outlet, thereby maximizing disruption of said flow of said fluid dispersion.	Ex. 1006, page 30, lines 9-13; Ex. 1006, pages 13-14, Figures 1-2.	Ex. 1005, page 18, lines 21-25; Ex. 1005, pages 28-29, Figures 1-2.
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V. PATENTABILITY OVER THE PRIOR ART

In light of the Federal Circuit’s en banc decision in *Aqua Products v. Matal*, 872 F.3d 1290, 1296, 1310 (Fed. Cir. 2017), Patent Owner need not prove the patentability of the proposed substitute claims. And as the Patent Office has acknowledged before the Federal Circuit, and the Federal Circuit has held, Patent Owner adequately meets its duty of candor by simply confirming its belief that the proposed substitute claim is patentable over all known prior art, alone or combined. *Nike Inc. v. Adidas AG*, 812 F.3d 1326, 1350 (Fed. Cir. 2016) (overruled en banc on other grounds). Patent Owner so confirms its belief that the proposed substitute claim is patentable over all known prior art, alone or combined.

In an abundance of caution and purely in support of the above confirmation, Patent Owner nonetheless addresses several prior art references referenced in prior papers within this proceeding.

In the Preliminary Guidance, the Board recognized that the amended language provides meaningful distinction over the asserted art to the extent the claim clarifies what the term “maximize” means in the context of the disclosed silencer assembly. The revised substitute claim does so by tying “maximizing disruption” to the structural and functional relationship expressly described in the specification: the silencer inlet is disposed relative to the baffle to **substantially** direct the flow of the fluid dispersion toward the baffle before the fluid dispersion exits the silencer chamber through the silencer outlet, so as to maximize disruption of the flow.

The specification expressly supports this relationship. The '094 patent states that the silencer assembly 134 includes a baffle 136 disposed in a silencer chamber 138 between a silencer inlet 135 and a silencer outlet 137, and that the baffle 136 is structured and disposed to further disrupt the flow of the fluid dispersion through the silencer chamber 138. The specification then explains that “the silencer inlet 135 is disposed relative to the baffle 136 to at least partially, if not substantially, direct the flow of the fluid dispersion towards the baffle 136, so as to maximize the disruption of flow.” Thus, in the context of the specification, maximum disruption is achieved when the flow of the fluid dispersion is substantially directed toward the baffle.

Revised substitute claim 21 follows that disclosure. The claim requires “a silencer assembly having a silencer chamber, a silencer inlet, a silencer outlet, and a baffle.” The claim further requires that “said baffle [is] disposed within said silencer

chamber between said silencer inlet and said silencer outlet.” The claim then recites that “said silencer inlet is disposed relative to said baffle to substantially direct a flow of said fluid dispersion towards said baffle before said fluid dispersion exits said silencer chamber through said silencer outlet, thereby maximizing disruption of said flow of said fluid dispersion.” Accordingly, the claim defines the structure that produces the maximizing function: the silencer inlet substantially directs the fluid dispersion toward the baffle within the silencer chamber before the fluid dispersion exits through the silencer outlet.

Sevy does not disclose or render obvious this claimed silencer assembly. Sevy may disclose atomizer structure and fluid dispersion concepts, but the revised claim is directed to a specific silencer chamber arrangement. Sevy does not disclose “a silencer assembly having a silencer chamber, a silencer inlet, a silencer outlet, and a baffle,” with the “baffle disposed within said silencer chamber between said silencer inlet and said silencer outlet.” Sevy also does not disclose a silencer inlet disposed relative to a baffle to “substantially direct a flow of said fluid dispersion towards said baffle” before the fluid dispersion exits through a silencer outlet. At most, Sevy may describe increasing or redirecting flow through separator structures, but “increasing” disruption is not the same as maximizing disruption through the claimed substantial flow-direction relationship. Indeed, the Board preliminarily found that Petitioner had not adequately shown that Sevy’s separator plate and inlet

direct flow toward the baffle so as to maximize disruption, and that Dr. White's "increase disruption" opinion was insufficient because increasing disruption is not necessarily the same as maximizing disruption.

Zeng does not cure Sevy's deficiencies. Zeng may relate to noise reduction, but the existence of noise reduction generally is not enough. The revised claim requires a particular arrangement of components within a silencer chamber: a silencer inlet, a silencer outlet, and a baffle positioned between them, with the silencer inlet arranged to substantially direct the fluid dispersion toward the baffle before exit. Zeng does not disclose that structure or flow path. Nor does Zeng disclose the claimed functional relationship in which maximizing disruption is achieved by substantially directing the fluid dispersion toward the baffle.

Goubet also does not disclose or render obvious the revised substitute claim. Goubet includes a diffuser head, a diffusion chamber, and downstream vaporization structures including concentric enclosures and a baffle path. But Goubet's baffle arrangement is part of a vaporization path for breaking oil droplets into microdroplets, not the claimed silencer assembly. Goubet does not disclose "a silencer assembly having a silencer chamber, a silencer inlet, a silencer outlet, and a baffle," nor does it disclose the claimed arrangement in which the silencer inlet substantially directs fluid dispersion toward the baffle before the dispersion exits the silencer chamber. Goubet's droplet flow exits the diffusion chamber toward the

reservoir and then proceeds through concentric enclosure structures and a baffled path, which is different from the claimed silencer inlet/baffle/outlet relationship.

Kaiser does not cure the deficiencies of Goubet. Kaiser is an electro-spray combustion reference involving fuel dispersion and catalytic combustion. Kaiser does not disclose the claimed silencer assembly and does not provide the missing “silencer chamber,” “silencer inlet,” “silencer outlet,” or baffle relationship required by the revised claim. Kaiser also does not disclose maximizing disruption of fluid-dispersion flow through a silencer chamber by substantially directing that flow toward a baffle before exit through a silencer outlet.

Gao also does not disclose or render obvious the revised substitute claim. Gao may include cavities, reflux structures, baffles, or discharge channels associated with atomization of essential oil, but substitute claim 21 is not satisfied by the mere presence of a baffle somewhere in a diffuser. The claim requires that the baffle be “disposed within said silencer chamber between said silencer inlet and said silencer outlet,” and further requires that the silencer inlet substantially direct the fluid dispersion toward the baffle before exiting through the silencer outlet, thereby maximizing disruption of the flow of the fluid dispersion. Gao’s disclosure of upper and lower cavities, a baffle, a through hole, and reflux structures does not disclose the claimed silencer-specific inlet/baffle/outlet relationship.

Accordingly, revised substitute claim 21 is patentable because the asserted references do not disclose or render obvious the claimed silencer chamber flow path. The claim is directed to a specific silencer assembly arrangement in which the silencer inlet substantially directs fluid dispersion toward the baffle before exit through the silencer outlet, thereby maximizing disruption of the flow. The claim is not directed to generic noise reduction, a generic baffle, or a generic atomization chamber.

VI. CONCLUSION

Patent Owner respectfully requests that, to the extent that claims 7-9 and 11 are deemed unpatentable, the Board substitute the proposed substitute claim.

Dated: May 15, 2026

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of this Contingent Motion to Amend has been served in its entirety on May 15, 2026, by causing it and accompanying documents (if any) to be electronically mailed to the following attorneys of record for the Petitioner:

Dated: May 15, 2026

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CLAIM APPENDIX

Underlining and strikethrough text show the modifications to the original claim being made in the corresponding substitute claim.

21. (Substitute for independent claim 7, if found unpatentable)

A fluid dispersion assembly is operatively interconnected to a container of an operative fluid and a compressed air source to generate and discharge a fluid dispersion into a surrounding airspace, said fluid dispersion assembly comprising:

a diffusion unit at least partially defining a diffusion chamber,

a discharge port disposed in fluid communication between said diffusion chamber and the surrounding airspace,

a diffusion assembly disposed in an operative engagement with said diffusion unit, wherein said diffusion assembly comprises an atomizer assembly, and

a silencer assembly having a silencer chamber, silencer inlet, a silencer outlet, and a baffle, said baffle being disposed within said silencer chamber, wherein said baffle partially ~~restricts~~disrupts movement of the fluid dispersion through said silencer chamber from said silencer inlet to said silencer outlet, thereby dampening sound waves generated during operation of said fluid dispersion assembly, and

wherein said silencer inlet is disposed relative to said baffle to substantially direct a flow of said fluid dispersion towards said baffle before said fluid dispersion

exits said silencer chamber through said silencer outlet, thereby maximizing
disruption of said flow of said fluid dispersion.