

**IN THE UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF LOUISIANA**

INTERNATIONAL MEZZO)
TECHNOLOGIES, INC.)
Plaintiff,) Civil Action No. _____
)
v.)
) JURY DEMANDED
AIRBORNE ECS, LLC)
)
)

COMPLAINT

Plaintiff International Mezzo Technologies, Inc. (“Mezzo”) brings this action for declaratory judgment of patent invalidity, trade secret misappropriation and other counts against Defendant Airborne ECS, LLC d/b/a Intergalactic (“Airborne”). Airborne has attempted to assert its U.S. Patent No. 11,519,670 (“the ‘670 Patent” relating to laser welded microtube heat exchangers for aircraft environmental control systems) against Mezzo to stop Mezzo from competing against Airborne in the marketplace. Airborne alleges that Mezzo infringes the ‘670 Patent despite knowing that Airborne is not the true owner of the invention claimed in the ‘670 Patent. Rather, Mezzo is the true owner of the claimed invention, and Airborne’s assertion of the ‘670 Patent against Mezzo directly conflicts with Mezzo’s proper claim of inventorship and threatens to deprive Mezzo of exercise and full enjoyment of those property rights, including the subject matter of the ‘670 Patent and Mezzo’s own pending patent applications. Mezzo seeks, among other remedies, declaratory judgment of invalidity of the claims of the ‘670 Patent and/or correction of inventorship of the ‘670 Patent to reflect the correct inventor(s) of the ‘670 Patent claims.

THE PARTIES

1. Plaintiff is a Louisiana corporation having a principal place of business at 10246 Mammoth Ave, Baton Rouge, Louisiana 70814.

2. Upon information and belief, Defendant Airborne ECS, LLC is a Delaware limited liability company having a principal place of business at 3172 East Deseret Drive South, St. George, Utah 84790.

JURISDICTION AND VENUE

3. This declaratory judgment action arises under 28 U.S.C. §§ 1331 and 1338 and the patent laws of the United States, 35 U.S.C. § 1 et seq. and the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202, and supplemental jurisdiction exists because other claims are so related to claims as to which the District Court has original jurisdiction that they form part of the same case or controversy under Article III of the United States Constitution, as alleged below. Further, this court has jurisdiction under 28 U.S.C. § 1332 in that it is a civil action between citizens of different states and the amount in controversy exceeds \$75,000.

4. This Court has personal jurisdiction over Airborne arising from Airborne's own purposeful and tortious conduct directed in Louisiana, including misappropriation of Mezzo's trade secrets during trips to Mezzo's facilities in Baton Rouge, Louisiana and Airborne sending demand letters to Mezzo in Baton Rouge, Louisiana accusing Mezzo of infringing the '670 Patent. Specifically, Mezzo received a demand letter from Airborne on or about August 7, 2023, accusing Mezzo of "infringing the '670 Patent". *See* Exhibit A, pg. 1.

5. Venue is proper in this district pursuant to 28 U.S.C. § 1391, as a substantial part of the events giving rise to the claims occurred in this judicial district.

BACKGROUND & ALLEGATIONS

A. *International Mezzo Technologies, Inc.*

6. Mezzo (formerly Mezzo Systems, Inc.) was founded by Kevin Kelly, Mezzo's President, in 2000 and is the world leader in designing and manufacturing microtube heat exchangers. Mezzo's products were originally designed for use in the high-performance automotive racing industry, but are now also used in aerospace, defense, power, space, cryogenics and various other industries.

7. Mezzo has experienced great success and notoriety in its industry throughout the years. For example, in 2008 Andretti Racing used Mezzo's microtube radiators in the Indy 500. Additionally, in 2010 Mezzo was awarded the BorgWarner Louis Schwitzer Award (an annual innovation award presented by the Indiana Section of the Society of Automotive Engineers) for Mezzo's microtube heat exchanger. *See* Exhibit B (<https://www.indianapolismotorspeedway.com/news-multimedia/news/2010/05/21/mezzo-microchannel-radiator-wins-borgwarner-louis-schwitzer-award>)

8. Also, in 2015, Mezzo secured a contract with NASA to develop microtube heat exchangers for use in NASA's Orion spacecraft. Exhibit C (https://www.theadvocate.com/baton_rouge/news/business/baton-rouge-s-mezzo-technologies-looking-beyond-racecar-tracks-to-space1).

9. As least as early as 2019 it was well-known in the industry that Mezzo utilized laser welded microtubes in its heat exchangers. For example, on March 22, 2019, the Department of Energy ("DOE") issued a press release announcing that Mezzo was awarded a \$1,640,000.00 grant from the DOE to design, manufacture, and test a compact, nickel-based superalloy supercritical carbon dioxide heat exchanger comprising laser welded microtubes. *See*

Exhibit D (<https://arpa-e.energy.gov/news-and-media/press-releases/doe-announces-36-million-high-temperature-materials-projects>); *see also* Exhibit E, Turbo-Brayton Converter for Radioisotope Power Systems, Nuclear and Emerging Technologies for Space, American Nuclear Society Topical Meeting, February 25-28, 2019, pg. 2 (“Creare developed the micro-tube heat exchanger technology and associated manufacturing processes collaboratively with Mezzo Technologies Incorporated....”).

10. At least as early as 2019 it was also publicly known that Mezzo designed and manufactured heat exchangers for use in environmental control systems. *See* Exhibit F, Integrated Oxygen Flow Meter/Heat Exchanger for Portable Life Support Systems, 48th International Conference on Environmental Systems, 8-12 July 2018, pg. 6.

11. Mezzo also has taken proactive steps to protect its innovations and intellectual property, including its microtube heat exchangers. For example, Mezzo applied for, and the United States Patent and Trademark Office (the “USPTO”) issued to Mezzo U.S. Patent No. 8,177,932, entitled “Method for Manufacturing a Micro Tube Heat Exchanger” on May 15, 2012. *See* Exhibit G.

B. The Protracted History Between the Parties

12. The parties are currently competitors in the same field of technology: the design and manufacture of custom laser welded, microtube heat exchangers.

13. However, prior to the parties becoming competitors, Airborne was a customer of Mezzo’s. Specifically, on or about March 29, 2017, Brandon Carle, the Director of Engineering for Airborne, contacted Mr. Kelly of Mezzo inquiring as to whether Mezzo could design and manufacture a laser welded microtube heat exchanger for Airborne. The heat exchanger sought by Airborne was to be used in an environmental control system (“ECS”) of an aircraft.

14. This was not the first interaction between Mr. Carle and Mezzo. Rather, Mr. Carle was previously employed by Ametek Hughes-Treitler (“Ametek”) which is a provider of plate-fin heat exchangers, and Ametek was a customer of Mezzo’s in 2015 and 2016.

15. On or about October 2015, Jeffrey Chen of Ametek contacted Mezzo requesting a laser welded microtube heat exchanger. After the execution of a non-disclosure agreement, Mezzo initiated a project for Ametek and issued a proposal to Ametek for the project. The proposal to Ametek specified that the heat exchanger to be developed by Mezzo was to be a laser welded microtube heat exchanger.

16. On or about January 2016, Mezzo delivered the requested heat exchanger to Ametek for testing. Around March of 2016, Mr. Carle replaced Mr. Chen as the project lead with Mezzo, and Mr. Carle and Mezzo continued to communicate regarding the Ametek project. Upon information and belief, Mr. Carle left Ametek in August of 2016 and sometime thereafter joined Airborne. Thus, at least as early as March 2016, Mr. Carle knew that Mezzo designed and manufactured laser welded heat exchangers for aircraft ECS and other applications.

17. Reverting to Mr. Carle’s inquiry to Mezzo on behalf of Airborne, because of that inquiry, the parties executed a non-disclosure agreement on or about March 29, 2017 wherein Airborne agreed to “not, directly or indirectly, disclose Confidential Information to a third party, or use the Confidential Information except in furtherance of the Potential Arrangement or as authorized by [Mezzo].” After execution of the non-disclosure agreement, Mezzo provided Airborne confidential information regarding Mezzo’s laser welded microtube heat exchangers. On or about May 2017, Mr. Bill Lee and Mr. Brandon Carlson, employees of Airborne, also personally toured Mezzo’s facilities.

18. On or about October 2017, Mr. Nicholas F. Herrick-Kaiser of Airborne (who is coincidentally also an alleged inventor of Airborne's '670 Patent) emailed Mezzo requesting additional information regarding a laser welded microtube heat exchanger for Raytheon Technologies (an aircraft manufacturer). Mezzo provided the requested information to Mr. Herrick-Kaiser, and Airborne indicated that Mezzo would likely be engaged to manufacture the heat exchanger.

19. On or about February 2018, Mr. Lee and Mr. Herrick-Kaiser of Airborne toured Mezzo in person again, brought a representative from Raytheon with them, and specifically requested to view how Mezzo's manufactures its laser welded heat exchangers. At this time, Mezzo was still not engaged to manufacture the heat exchanger, but Mezzo continued to provide Airborne information, including a video of Mezzo's laser welding process, in good faith (and assuming that Airborne would abide by the non-disclosure agreement executed by the parties) in hopes that Mezzo would secure the contract from Airborne.

20. To Mezzo's disappointment, on or about May 2018, Airborne informed Mezzo that Airborne would not be offering the Raytheon contract to Mezzo. At that point the customer relationship with Airborne ceased.

C. Airborne's Improper Patenting of Mezzo's Technology

21. On February 11, 2020, Airborne filed with the USPTO provisional patent application no. 62/972,836. That application included four claims including Claim 1 that reads:

*A microtube heat exchanger, comprising:
two end plates, each having an array of openings;
an array of microtubes disposed between the two end plates;
wherein the microtubes are laser welded to the end plates.*

22. Despite Airborne and Mr. Herrick-Kaiser knowing that Mezzo previously designed and manufactured laser welded microtube heat exchangers for aircrafts, Airborne improperly claimed to the USPTO in its application that it invented a “microtube heat exchanger...wherein the microtubes are laser welded.” That application identified Taylor Fausett and Nicholas F. Herrick-Kaiser as the “inventors” of the application – and made no reference to Mezzo or its engineers as inventors.

23. Each individual associated with the filing of a patent application (which includes inventors, attorneys and other persons who are substantively involved in the patent application) has a duty to disclose information known to the individual that is material to patentability. *See* 37 CFR 1.56. In violation of this duty of candor, Airborne, Mr. Fausett and Mr. Herrick-Kaiser each failed to disclose to the USPTO that Mezzo was the true inventor of a laser welded microtube heat exchanger for aircraft ECS systems.

24. Further, Mr. Herrick-Kaiser and Mr. Fausett, on October 18, 2022 and April 12, 2021 respectively, each signed a declaration stating under oath, that he is an “original inventor” of a claimed invention in Airborne’s patent application. Messrs. Herrick-Kaiser and Fausett made these declarations knowing them to be false, with the intent of deceiving the USPTO and defrauding Mezzo.

25. Moreover, these false statements are also in violation of 18 USC § 1001 as the signed declarations also state: “I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.”

26. As a result of Airborne’s breach of its duty of disclosure and its failure to identify the true inventors of claimed invention, the USPTO improperly allowed Airborne’s patent

application and it issued as U.S. Patent. No. 11,519,670 on December 6, 2022. The ‘670 Patent includes Claim 1 that by Airborne’s own characterization covers (1) a microtube heat exchanger; (2) for an environmental control system of an aircraft; (3) including laser welds for coupling the microtubes to heat exchanger end plates. See Exhibit A and Exhibit H (the ‘670 Patent). Each and every of these elements were previously invented by Mezzo and Airborne knew the same.

D. Airborne’s Improper Attempt to Enforce the ‘670 Patent

27. Not only did Airborne improperly patent Mezzo’s technology, but it has also further attempted to use that same patent to stop Mezzo from practicing its own technology and competing against Airborne. Airborne sent to Mezzo a letter entitled “Notice to Cease and Desist Any Infringement of Intergalactic’s U.S. Patent No. 11,519,670” and dated August 7, 2023. Exhibit A.

28. Airborne’s attempt to enforce a patent that it knows to be invalid is inequitable conduct and an unfair trade practice.

**FIRST CAUSE OF ACTION
(Declaratory Judgment of Invalidity of the ‘670 Patent)**

29. Mezzo repeats and incorporates by reference the allegations of paragraphs 1-28.

30. The ‘670 Patent is invalid for failure to meet the conditions of patentability of 35 U.S.C. §§ 102, 103 and/or 112.

31. An actual, justiciable case or controversy exists between the parties concerning the validity of the claims of the ‘670 Patent.

32. Mezzo is entitled to declaration that the ‘670 Patent is invalid.

**SECOND CAUSE OF ACTION
(Declaratory Judgment of Invalidity of the ‘670 Patent for Breach of Duty of Candor to the USPTO)**

33. Mezzo repeats and incorporates by reference the allegations of paragraphs 1-28.

34. The '670 Patent is invalid and/or unenforceable for inequitable conduct and/or breach of Airborne's duty of candor to the USPTO under 37 CFR § 1.56 because several entities involved with the application, including Airborne, Taylor Fausett and Nicholas F. Herrick-Kaiser, knowingly withheld material information from the USPTO with the intent to deceive.

35. An actual, justiciable case or controversy exists between the parties concerning the validity of the claims of the '670 Patent.

36. Mezzo is entitled to declaration that the '670 Patent is invalid.

**THIRD CAUSE OF ACTION
(Declaratory Judgment of Invalidity of the '670 Patent for Failure to Name the Correct Inventor)**

37. Mezzo repeats and incorporates by reference the allegations of paragraphs 1-28.

38. The '670 Patent is invalid and/or unenforceable for failing to name the proper inventors, in violation of the U.S. Constitution Article 1, Section 8 and/or 35 U.S.C. §§ 101, 115 and 116 and/or other statutes and common law.

39. An actual, justiciable case or controversy exists between the parties concerning the validity of the claims of the '670 Patent.

40. Mezzo is entitled to declaration that the '670 Patent is invalid.

**FOURTH CAUSE OF ACTION
(Correction of Inventorship of the '670 Patent)**

41. Mezzo repeats and incorporates by reference the allegations of paragraphs 1-28.

42. Taylor Fausett and Nicholas F. Herrick-Kaiser are listed as the sole inventors of the '670 Patent. Messrs Fausett and Herrick-Kaiser made no inventive contribution to any of the claims of the '670 Patent. The recorded inventorship of the '670 Patent should be corrected to remove Taylor Fausett and Nicholas F. Herrick-Kaiser, and to add the true and correct inventors. The recorded inventorship of the '670 Patent is incorrect and requires correction. Mezzo pleads

that this Court, before such matter is called into question, order correction of the '670 Patent on notice and hearing of all parties concerned and order the Director of the USPTO to issue a certificate accordingly.

**FIFTH CAUSE OF ACTION
(Misappropriation of Trade Secrets Under the Defend Trade Secrets Act)**

43. Mezzo repeats and incorporates by reference the allegations of paragraphs 1-28.

44. Mezzo has developed proprietary information, data, and methods of manufacture relating to the design and manufacture of microtube heat exchangers that constitute trade secrets within the meaning of 18 U.S.C. § 1839(3).

45. Mezzo has rightful legal or equitable title to the trade secrets.

46. Mezzo has taken reasonable measures to keep this information secret, including, without limitation, by implementing company policies and procedures governing the protection of trade secrets and by requiring business partners to execute non-disclosure agreements (like the one executed by Airborne).

47. Mezzo's trade secrets derive actual and potential independent economic value from not being generally known to, and not being readily ascertainable through proper means by, another person who can obtain economic value from the disclosure or use of the information.

48. Upon information and belief, Airborne has improperly used and disclosed Mezzo's trade secrets for the purposes of directly competing with Mezzo in violation of the Defend Trade Secrets Act.

49. Airborne's violation of the Defend Trade Secrets Act is causing, and will continue to cause, substantial, immediate and irreparable harm to Mezzo for which Mezzo has no adequate remedy at law.

50. As a result of Airborne's conduct, Mezzo is entitled to temporary and permanent injunctive relief against any violation or further violation of the Defend Trade Secrets Act, as well as a mandatory injunction requiring Airborne to take affirmative actions to protect Mezzo's trade secrets, pursuant to 18 U.S.C. § 1836(b)(3)(A).

51. Mezzo is also entitled to all actual damages that it has suffered and may suffer in the future, as well as damages for any unjust enrichment realized by Airborne, caused by the misappropriation of the trade secrets that is not addressed in computing damages for actual loss pursuant to 18 U.S.C. § 1836(b)(3)(B).

52. Because Airborne willfully and maliciously misappropriated and used Mezzo's trade secrets (and continue to do so), Mezzo is entitled to exemplary damages in an amount of twice the award of any actual damages and unjust enrichment damages pursuant to 18 U.S.C. § 1836(b)(3)(C).

53. In addition, because of Airborne's willful and malicious violation of the Defend Trade Secrets Act, Mezzo is entitled to an award of attorneys' fees and expenses of litigation pursuant to 18 U.S.C. § 1836(b)(3)(D).

**SIXTH CAUSE OF ACTION
(Misappropriation of Trade Secrets Under the Louisiana Uniform Trade Secrets Act)**

54. Mezzo repeats and incorporates by reference the allegations of paragraphs 1-28.

55. Mezzo has developed proprietary information, data, and methods of manufacture relating to the design and manufacture of microtube heat exchangers that constitute trade secrets within the meaning of La. R.S. § 51:1431(4).

56. Mezzo has rightful legal or equitable title to the trade secrets.

57. Mezzo has taken reasonable measures to keep this information secret, including, without limitation, by implementing company policies and procedures governing the protection of trade secrets and by requiring business partners to execute non-disclosure agreements (like the one executed by Airborne).

58. Mezzo's trade secrets derive actual and potential independent economic value from not being generally known to, and not being readily ascertainable through proper means by, another person who can obtain economic value from the disclosure or use of the information.

59. Upon information and belief, Airborne has improperly used and disclosed Mezzo's trade secrets for the purposes of directly competing with Mezzo in violation of Louisiana Uniform Trade Secrets Act, La. R.S. § 51:1431 et seq.

60. Airborne's violation of the Louisiana Uniform Trade Secrets Act is causing, and will continue to cause, substantial, immediate and irreparable harm to Mezzo for which Mezzo has no adequate remedy at law.

61. As a result of Airborne's conduct, Mezzo is entitled to temporary and permanent injunctive relief against any violation or further violation of the Louisiana Uniform Trade Secrets Act, as well as a mandatory injunction requiring Airborne to take affirmative actions to protect Mezzo's trade secrets, pursuant to La. R.S. § 51:1432.

62. Mezzo is also entitled to all actual damages that it has suffered and may suffer in the future, as well as damages for any unjust enrichment realized by Airborne, caused by the misappropriation of the trade secrets that is not addressed in computing damages for actual loss pursuant to La. R.S. § 51:1433.

63. Because Airborne willfully and maliciously misappropriated and used Mezzo's trade secrets (and continue to do so), Mezzo is entitled to an award of attorneys' fees and expenses of litigation pursuant to La. R.S. § 51:1434.

**SEVENTH CAUSE OF ACTION
(Breach of Contract)**

64. Mezzo repeats and incorporates by reference the allegations of paragraphs 1-28.

65. Airborne and Mezzo executed a mutual non-disclosure agreement limiting the disclosure of confidential and proprietary information of the parties.

66. Upon information and belief, Airborne has used and disclosed, and is continuing to use and disclose, Mezzo's confidential information in breach of that non-disclosure agreement.

67. Airborne's breach of the non-disclosure agreement has proximately resulted in damages to Mezzo in an amount to be proven at trial.

68. Airborne's breaches of the Agreement are in bad faith, are ongoing and will cause irreparable harm to Mezzo if not preliminarily and permanently enjoined. For such breaches, Mezzo has no adequate remedy at law.

**EIGHTH CAUSE OF ACTION
(Conversion)**

69. Mezzo repeats and incorporates by reference the allegations of paragraphs 1-28.

70. Airborne is in wrongful possession of Mezzo's confidential and proprietary information.

71. Airborne has wrongfully asserted dominion or control over Mezzo's confidential and proprietary information in a manner inconsistent with Mezzo's ownership and entitlement to such information.

72. As a direct and proximate result of Airborne's conversion of Mezzo's confidential and proprietary information, Mezzo has sustained substantial damages in an amount to be determined at trial. Mezzo is entitled to recovery both as a revendicatory action due to the transfer of confidential information in bad faith and without authorization and as a delictual obligation because of Airborne's unjust enrichment.

73. The value of Mezzo's confidential and proprietary information is in its exclusive use by Mezzo. By wrongfully asserting dominion or control over this information, Airborne has greatly diminished the monetary value of the information that Mezzo has sought to protect, for which Mezzo is entitled to monetary damages in an amount to be proven at trial.

**NINTH CAUSE OF ACTION
(Violation of the Louisiana Unfair Trade Practices and Consumer Protection Act)**

74. Plaintiff repeats and incorporates by reference the allegations of paragraphs 1-28.

75. By threatening Mezzo with patent infringement knowing that the '670 Patent is invalid, Airborne purposely harmed the marketing efforts and sales of Mezzo's laser welded microtube heat exchangers for aircraft ECS.

76. Such conduct constitutes unfair trade practices and unfair in violation of the Louisiana Unfair Trade Practices Act LSA-R.S. 51:1401 et seq. for which Airborne is liable for loss of economic opportunity, loss of revenue/profits, general damages and attorneys' fees.

PRAYER FOR RELIEF

WHEREFORE, Mezzo prays that a judgment be entered that:

1. The '670 Patent is invalid and/or unenforceable under one or more of 35 U.S.C. §§ 102, 103 and/or 112.
2. The '670 Patent is invalid and/or unenforceable due to inequitable conduct.
3. The '670 Patent is invalid and/or unenforceable due to a breach of applicant's duty of candor to the USPTO under 37 CFR § 1.56 as well as other statutes and common law.
4. The '670 Patent is invalid and/or unenforceable due to improper inventorship under the U.S. Constitution Article 1, Section 8 and/or 35 U.S.C. §§ 101, 115 and 116 and/or other statutes and common law.
5. The recorded inventorship for the '670 Patent be corrected.
6. This case is exceptional within the meaning of 35 U.S.C. § 285, based in part or in whole on Airborne knowingly calculated actions to defraud both the USPTO and Mezzo and that all costs and expenses of this action, including reasonable attorneys' fees, be awarded to Mezzo.
7. Airborne is preliminarily and permanently enjoined from directly or indirectly: (a) retaining, disclosing, using, modifying or adapting any of Mezzo's trade secrets; (2) retaining, disclosing, using, modifying or adapting any of Mezzo's confidential information; and (3) competing unfairly against Mezzo by possessing, disclosing, or using Mezzo's trade secrets and/or confidential to further Airborne's own business interests.
8. Airborne returns all of Mezzo's property including, without limitation, any documents, computer files, or other items reflecting or containing Mezzo's trade secrets and confidential information.

9. Award Mezzo actual and compensatory damages in an amount to be determined at trial.

10. Award Mezzo all costs and attorneys' fees incurred in the prosecution of this lawsuit and the underlying disputes.

11. Award Mezzo all unjust enrichment and enhanced damages authorized under the Defend Trade Secrets Act and the Louisiana Uniform Trade Secrets Act.

12. Mezzo be awarded such other and further relief as a matter of law or equity as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Mezzo hereby demands trial by jury to the extent authorized by law.

Dated: November 21, 2023.

/s/ David J. Scotton

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