

1 Thomas W. Yeh (CA 287118)
2 thomas.yeh@lw.com
3 LATHAM & WATKINS LLP
4 355 South Grand Avenue, Suite 100
5 Los Angeles, CA 90071
6 Phone: (213) 485-1234
7 Fax: (213) 891-8763

8 (Further attorneys listed on signature block)

9 Attorneys for Plaintiff,
10 DELTA T LLC D/B/A BIG ASS FANS

11 UNITED STATES DISTRICT COURT
12 CENTRAL DISTRICT OF CALIFORNIA

13 Delta T LLC, d/b/a Big Ass Fans

14 Plaintiff,

15 v.

16 MacroAir Technologies, Inc.,

17 Defendant.

18 MacroAir Technologies, Inc.

19 Counterclaimant,

20 v.

21 Delta T LLC d/b/a/ Big Ass Fans,

22 Counterclaim Defendant.

CASE NO. 5:20-cv-00728-GW-GJS

**Big Ass Fans' First Amended
Complaint For Patent Infringement**

Judge: George H. Wu
Magistrate Judge: Gail J. Standish

DEMAND FOR JURY TRIAL

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Pursuant to Fed. R. Civ. P. 15(a)(2), and with consent of Defendant MacroAir Technologies, Inc. (“MacroAir”), Plaintiff Delta T, LLC d/b/a Big Ass Fans (“Big Ass Fans”) brings this patent infringement action against MacroAir as follows:

INTRODUCTION

1. This is a civil action for infringement of United States Patent Nos. 9,458,859 (the “’859 Patent”), 8,672,649 (the “’649 Patent”), and 8,900,041 (the “’041 Patent”) (collectively, the “Asserted Patents”) under the patent laws of the United States, 35 U.S.C. 1 *et seq.*

THE PARTIES

2. Plaintiff Big Ass Fans is a Kentucky limited liability company, with its principal place of business at 2348 Innovation Drive, Lexington, KY 40511.

3. Defendant MacroAir is a California company with its principal place of business at 794 South Allen Street, San Bernardino, CA 92408.

4. Defendant MacroAir designs, manufactures, imports, distributes, markets, and/or sells the infringing systems.

JURISDICTION AND VENUE

5. The Court has subject matter jurisdiction over these claims under 28 U.S.C. §§ 1331 and 1338(a) and the patent laws of the United States, 35 U.S.C. § 1 *et seq.*

6. The Court has personal jurisdiction over MacroAir consistent with the requirements of the Due Process Clause of the United States Constitution and the California Long Arm Statute. On information and belief, MacroAir has regularly and systematically transacted business in California, directly or through subsidiaries or intermediaries, and/or committed acts of patent infringement in California as alleged more particularly below. For example, MacroAir currently sells or has sold its X Series, Y Series, Z Series, AirVolution-D 780, AirVolution-D 550, AirVolution-D 370, AirSpan, AirVolution, AirElite, and AirStar fan models and

1 related components (the “Accused Products”) to customers, including customers in
2 California. MacroAir interacts with customers in California, including through visits
3 to customer sites in California. Through these interactions and visits, MacroAir
4 directly infringes the Asserted Patents as set out in more particularity in ¶¶ 21
5 through 81.

6 7. MacroAir’s San Bernardino, California location, on information and
7 belief, engages in sales, testing, and assembly activities relating to the Accused
8 Products. These activities, among others, directly infringe the Asserted Patents as
9 set out in more particularity in ¶¶ 21 through 81 of this Complaint. MacroAir
10 operates a website and conducts other online activities, including making job
11 postings for its San Bernardino location. The Court therefore has both general and
12 specific personal jurisdiction over MacroAir.

13 8. Venue is proper in this district under 28 U.S.C. § 1400(b) because
14 MacroAir has a regular and established place of business in this district and has
15 committed acts of infringement in this district. MacroAir is located at 794 South
16 Allen Street, San Bernardino, CA 92408, which is in San Bernardino County and
17 within this district. MacroAir also employs full-time personnel such as sales
18 personnel and engineers in this district, including in San Bernardino, California.
19 MacroAir has also committed acts of infringement in this district by
20 commercializing, marketing, selling, distributing, testing, and servicing certain
21 Accused Products.

22 **FACTUAL BACKGROUND**

23 9. Big Ass Fans was founded in 1999 and has led the market for large,
24 industrial and commercial fans ever since. These fans—as large as 24 feet in
25 diameter—are the most efficient way to move significant volumes of air. They can
26 make spaces feel cooler in hot weather and warmer in cold weather, the latter through
27 a process known as de-stratification, that circulates warm air at the ceiling down to
28 occupants at ground level. The fans also use much less energy than alternatives like

1 air conditioning for cooling and allow a facility to operate using less heat in colder
2 months, keeping costs and environmental impact low. More recently, Big Ass Fans
3 entered the residential market, making its innovative, safe, and high-quality fans
4 more accessible for homes.

5 10. Big Ass Fans maintains its industry-leading position through relentless
6 innovation and technological improvement. It operates a 45,000 square foot LEED
7 GOLD certified research and development facility at its Lexington, Kentucky
8 headquarters. This facility—the only research facility in the world that is dedicated
9 to large-diameter air movement—pursues advances in safety, reliability, and
10 efficiency. Multiple research institutions—including Harvard University and the
11 University of California, Berkeley—have used this facility to conduct studies and
12 gather data. Through this research and testing, Big Ass Fans has continuously
13 improved its fans and is confident that they are the safest on the market.

14 11. One example of Big Ass Fans’ commitment to safety is its Airfoil
15 Restraint System and built-in automatic shutoff system, *see, e.g.*,
16 <https://www.youtube.com/watch?v=gCXRdvxbIq4> (last visited April 8, 2020).
17 These systems are designed to protect a building’s occupants against a serious
18 impact such as a forklift colliding with a fan, by immediately shutting off the motor
19 and keeping the fan intact.

20 12. Big Ass Fans ensures industry-leading quality by assembling products
21 at its Lexington, Kentucky factory. Big Ass Fans has grown its domestic
22 manufacturing for decades, bucking the industry trend of moving manufacturing
23 offshore. Big Ass Fans responded aggressively to the Great Recession, increasing
24 its revenue, expanding operations, and avoiding laying off any employees.

25 13. Big Ass Fans recently began manufacturing printed circuit boards for
26 its fans at its Lexington, Kentucky factory, creating high-paying, local jobs and
27 guaranteeing that its control electronics lead the industry. When Big Ass Fans
28 sources components, it focuses on high-quality, local suppliers, with three fourths of

1 its supply chain within a day’s drive of its Lexington, Kentucky headquarters.

2 14. Big Ass Fans and its team gives back by donating hundreds of fans,
3 gifting thousands of dollars, and volunteering countless hours. Big Ass Fans has
4 won numerous awards for innovation, quality, and safety, including Forbes’ 25 Best
5 Small Companies in America and Most Promising American Companies, various
6 ENERGY STAR awards from the Environmental Protection Agency, and Popular
7 Science’s Best of What’s New award.

8 15. Defendant MacroAir has taken a different approach. Rather than
9 investing in its own research and development, MacroAir copied Big Ass Fans’
10 innovative, patented features and incorporated them into its competing fans. This
11 copying has been without any payment or permission. MacroAir’s infringement
12 threatens Big Ass Fans’ investments in research, development, and high-quality
13 manufacturing. Through this suit, Big Ass Fans respectfully requests that this Court
14 protect it from MacroAir’s infringement.

15 **THE ASSERTED PATENTS**

16 16. The ’859 patent is entitled “Ceiling Fan System With Brushless Motor”
17 and issued on October 4, 2016, to sole inventor Richard W. Fizer. Big Ass Fans
18 owns the entire right, title, and interest in and to the ’859 patent. A copy of the ’859
19 patent is attached to this Complaint as Exhibit A.

20 17. The ’649 patent is entitled “Ceiling Fan System With Brushless Motor”
21 and issued on March 18, 2014 to inventors J. Carey Smith, Richard A. Oleson,
22 Richard M. Aynsley, Richard W. Fizer, Mark A. Toy, Elios Klemo, Ron G. Flanary,
23 and Troy A. Anderson. Big Ass Fans owns the entire right, title, and interest in and
24 to the ’649 patent. A copy of the ’649 patent is attached to this Complaint as Exhibit
25 B.

26 18. The ’041 patent is entitled “Automatic Control System for Ceiling Fan
27 Based on Temperature Differentials” and issued on December 2, 2014 to inventor
28 Mark A. Toy. Big Ass Fans owns the entire right, title, and interest in and to the

1 '041 patent. A copy of the '041 patent is attached to this complaint as Exhibit C.

2 **CLAIMS FOR PATENT INFRINGEMENT**

3 19. The allegations provided below are exemplary and without prejudice to
4 Big Ass Fans's infringement contentions. In providing these allegations, Big Ass
5 Fans does not convey or imply any particular claim constructions or the precise
6 scope of the claims.

7 20. As detailed below, each element of at least one claim of each of the
8 Asserted Patents is literally present in the Accused Products, or is literally practiced
9 by the process through which each of the Accused Products is made. To the extent
10 that any element is not literally present or practiced, each such element is present or
11 practiced under the doctrine of equivalents.

12 **COUNT 1**

13 **INFRINGEMENT OF THE '859 PATENT**

14 21. Big Ass Fans incorporates by reference the allegations set forth in
15 paragraphs 1 through 20 as though fully set forth herein.

16 22. On information and belief, MacroAir has infringed and continues to
17 infringe and/or has induced infringement of one or more claims of the '859 patent,
18 including at least claim 1, literally or under the doctrine of equivalents, by importing
19 into the United States, and/or making, and/or using, and/or selling, and/or offering
20 for sale in the United States, without authority or license, products including the X
21 Series, Y Series, Z Series, AirVolution-D 780, AirVolution-D 550, AirSpan,
22 AirVolution, AirElite, and AirStar fan systems and related components (collectively,
23 the "'859 Accused Products"), in violation of 35 U.S.C. § 271.

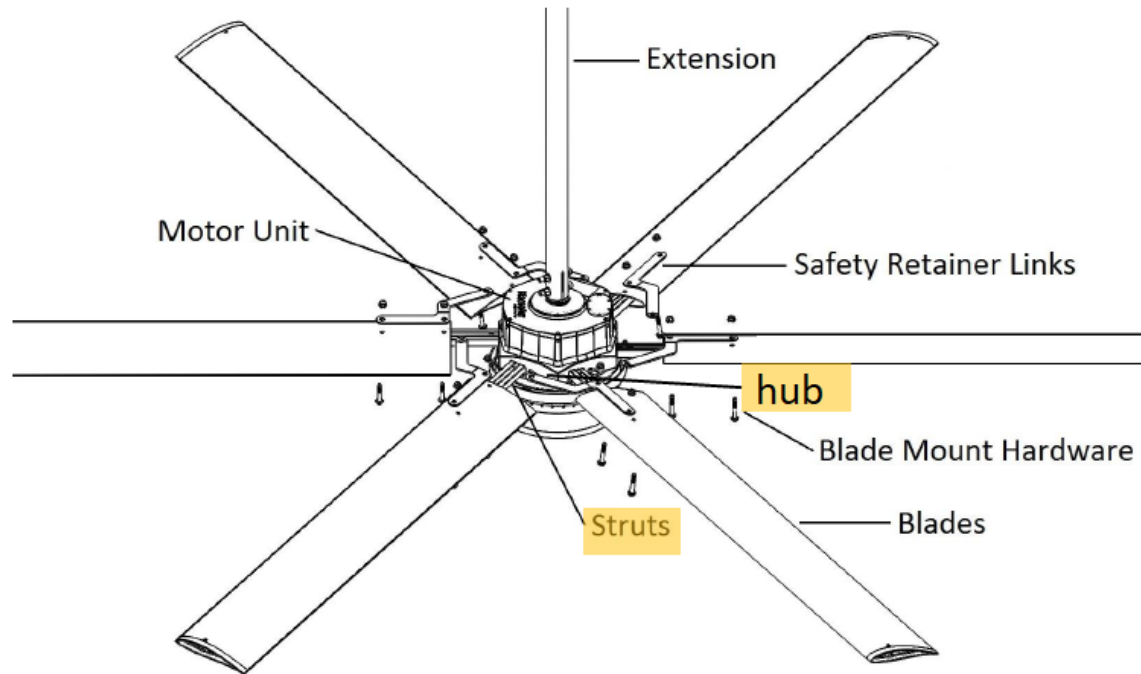
24 23. On information and belief, MacroAir has directly infringed and
25 continues to infringe one or more claims of the '859 patent, including at least claim
26 1, literally or under the doctrine of equivalents, by importing into the United States,
27 and/or making, and/or using, and/or selling, and/or offering to sell in the United
28 States, without authority or license, '859 Accused Products, in violation of 35 U.S.C.

1 § 271(a). On information and belief, MacroAir uses '859 Accused Products through
2 at least testing, evaluations, and demonstrations. For example, as part of its testing,
3 sales, and customer-service activities, MacroAir performs infringing
4 demonstrations, evaluations, and testing of '859 Accused Products at customer sites
5 in the United States and at MacroAir's sites in the United States. On information
6 and belief, MacroAir imports '859 Accused Products and makes '859 Accused
7 Products in the United States at its facility in San Bernardino, California. On
8 information and belief, MacroAir sells '859 Accused Products. For example,
9 MacroAir sells '859 Accused Products to customers in the United States through its
10 website and through its distributors. On information and belief, MacroAir offers
11 '859 Accused Products for sale. For example, MacroAir engages in sales,
12 marketing, and contracting activity in the United States and/or with United States
13 offices of its customers.

14 24. The '859 Accused Products meet all the limitations of at least claim 1
15 of the '859 patent. Specifically, claim 1 of the '859 patent claims a fan system,
16 wherein the fan system comprises: (a) a hub, wherein the hub is configured to rotate
17 about an axis, wherein the hub has a plurality of outwardly extending blade mounting
18 members; (b) a plurality of fan blades mounted to the blade mounting members of
19 the hub; (c) a drive system in communication with the hub, wherein the drive system
20 is operable to rotate the hub; and (d) a plurality of fan blade retainers, wherein each
21 of the fan blade retainers is secured to corresponding first and second blade mounting
22 members of the hub, wherein each of the fan blade retainers is further secured to
23 corresponding first and second fan blades associated with the corresponding first and
24 second blade mounting members, and further includes an elongated portion
25 extending radially along at least one of the first and second fan blades.

26 25. The '859 Accused Products are fan systems or constitute components
27 of fan systems. Each of the '859 Accused Products is a different fan model sold by
28 MacroAir or a related component.

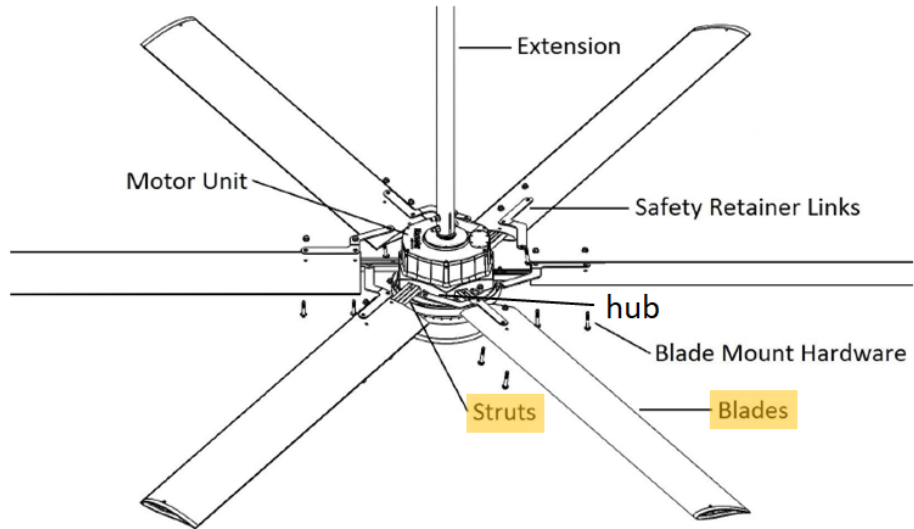
1 26. As shown in the exemplary image below, the '859 Accused Products
2 have a hub configured to rotate about an axis. Moreover, the hub of each '859
3 Accused Product has a plurality of outwardly extending blade mounting members
4 (e.g., struts). Each hub is near the center of the fan system with blade mounting
5 members extending from the hub.



6
7
8
9
10
11
12
13
14
15
16
17 **Schematic of MacroAir AirVolution-D 550/780 (from page 11 of AirVolution-**
18 **D 550/780 Installation Manual located at <https://macroairfans.com/resources/>)**
19 **(some annotations added)**

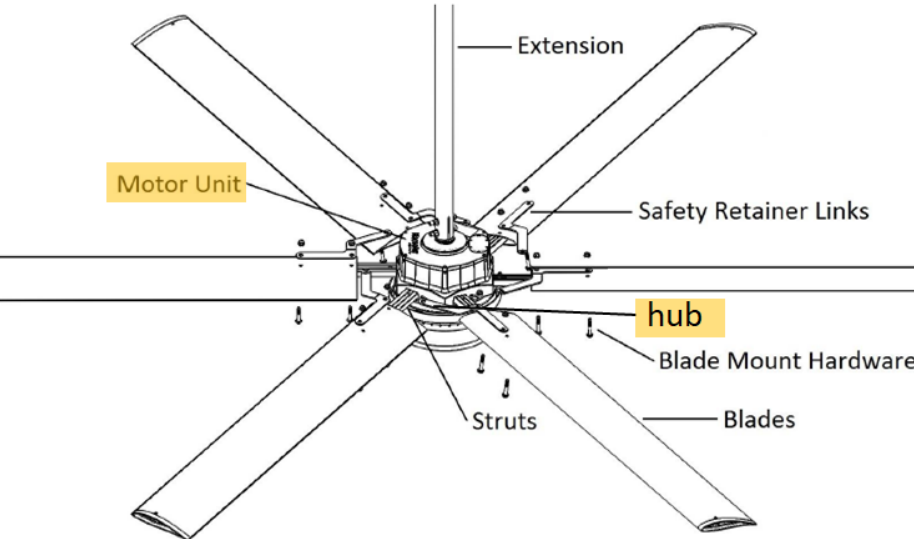
20 27. As shown in the exemplary image below, the '859 Accused Products
21 have a plurality of fan blades mounted to the blade mounting members (e.g., struts)
22 of the hub. The fan blades slide onto the blade struts during assembly of the fan
23 system.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28



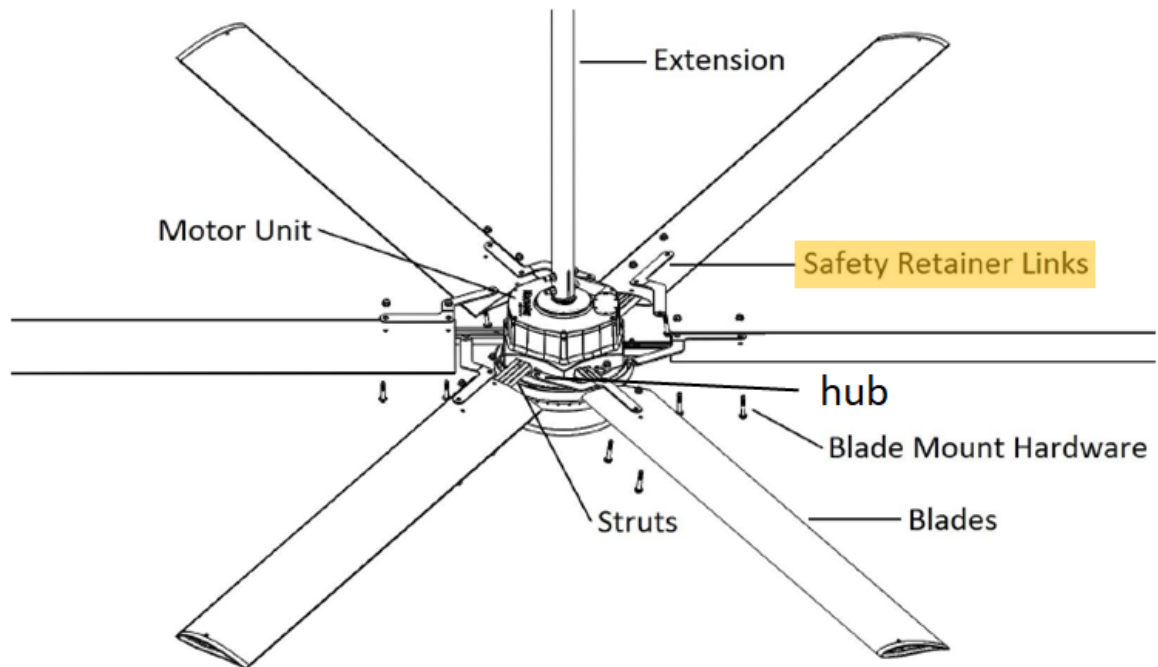
Schematic of MacroAir AirVolution-D 550/780 (from page 11 of AirVolution-D 550/780 Installation Manual located at <https://macroairfans.com/resources/>) (some annotations added)

28. As shown in the exemplary image below, the '859 Accused Products have a drive system in communication with the hub and this drive system rotates the hub. The drive system includes a motor that causes the hub to rotate so that the fan blades will likewise rotate.



Schematic of MacroAir AirVolution-D 550/780 (from page 11 of AirVolution-D 550/780 Installation Manual located at <https://macroairfans.com/resources/>) (some annotations added)

1 29. As shown in the exemplary image below, the '859 Accused Products
 2 include a plurality of fan blade retainers. Each of these retainers is secured to at least
 3 two blade mounting members and at least two fan blades associated with those blade
 4 mounting members. Finally, each of the fan blade retainers includes an elongated
 5 portion extending radially along the fan blades. The fan blade retainers help to
 6 secure the fan blades to the blade mounting members. Each retainer is secured to at
 7 least two blade mounting members and fan blades (e.g., with bolts). A portion of
 8 each retainer also extends radially along the axis of a fan blade to further secure the
 9 fan blade to its respective blade mounting member.



21

22 **Schematic of MacroAir AirVolution-D 550/780 (from page 11 of AirVolution-**
 23 **D 550/780 Installation Manual located at <https://macroairfans.com/resources/>)**
 24 **(some annotations added)**

25 30. On information and belief, MacroAir actively, knowingly, and
 26 intentionally induces infringement of one or more claims of the '859 patent under
 27 35 U.S.C. § 271(b) by actively encouraging others to import into the United States,
 28 and/or make, use, sell, and/or offer to sell in the United States, '859 Accused

1 Products or products containing the infringing fan system components of '859
2 Accused Products. For example, MacroAir representatives travel to customer and
3 distributor sites in the United States for sales and support activity that includes
4 working with customers and distributors to facilitate their infringing testing,
5 installation, marketing, and sales activity. On information and belief, MacroAir
6 supplies customers and distributors with '859 Accused Products. On information
7 and belief, a significant portion of MacroAir's net revenue in 2019 was generated
8 from contracts with customers in the United States. MacroAir additionally attends
9 conferences such as the International Health, Racquet & Sportsclub Association
10 (IHRSA) conference with the goal of promoting its fan systems. MacroAir Fans
11 IHRSA 2019 Advertisement, [https://www.youtube.com/watch?v=
12 c3SUDMWymDs&feature=emb_rel_end](https://www.youtube.com/watch?v=c3SUDMWymDs&feature=emb_rel_end) (last visited April 8, 2020). MacroAir
13 leverages these events to publicize technological advances and design updates to
14 potential customers and partners in the United States, including '859 Accused
15 Products.

16 31. MacroAir had knowledge of the '859 patent and that its activities
17 infringe the '859 patent since at least April 27, 2017. MacroAir has also known or
18 should have known since at least April 27, 2017 that its customers, distributors, and
19 other purchasers of '859 Accused Products are infringing the '859 patent at least
20 because MacroAir has known that it is infringing the '859 patent. For example,
21 MacroAir searched for patents assigned to Big Ass Fans and generated a spreadsheet
22 of these patents, including patents related to the '859 patent, by April 27, 2017.
23 MacroAir was also aware of the '859 patent by at least April 8, 2020, when Big Ass
24 Fans disclosed, by filing this Complaint, the existence of the '859 patent and
25 identified at least some of MacroAir's activities that infringe the '859 patent.

26 32. On information and belief, at least since April 27, 2017, MacroAir has
27 continued to make, use, sell, and/or offer for sale '859 Accused Products in the
28 United States, and/or import '859 Accused Products into the United States despite

1 its knowledge of the '859 patent and its infringement of that patent, and has
2 continued to induce infringement of the '859 patent. MacroAir's ongoing
3 infringement is willful.

4 33. Other entities directly infringe the '859 patent by making, using,
5 offering to sell, and/or selling at least some '859 Accused Products in the United
6 States and by importing '859 Accused Products into the United States. For example,
7 MacroAir's customer, a major aerospace company, has infringed and continues to
8 infringe one or more claims of the '859 patent, including at least claim 1, literally or
9 under the doctrine of equivalents, at least under 35 U.S.C. § 271(a) by importing into
10 the United States, and/or using, and/or selling, and/or offering for sale in the United
11 States, without authority or license, certain '859 Accused Products. In particular,
12 this major aerospace company uses these '859 Accused Products in at least one
13 facility.

14 34. MacroAir was aware of the '859 patent and its and others' infringement
15 by at least April 27, 2017. Additionally, by at least April 8, 2020, Big Ass Fans
16 disclosed, by filing this Complaint, the existence of the '859 patent and identified at
17 least some of this major aerospace company's and others' activities that infringe the
18 '859 patent. Thus MacroAir had knowledge of the '859 patent and others' direct
19 infringement of the '859 patent since at least April 27, 2017.

20 35. Big Ass Fans has suffered and continues to suffer damages as a result
21 of MacroAir's infringement of the '859 patent.

22 36. MacroAir's continuing acts of infringement are a basis of consumer
23 demand for '859 Accused Products and have irreparably harmed Big Ass Fans
24 through at least loss of market share and customer relationships. Big Ass Fans has
25 no adequate remedy at law, and will continue to suffer such irreparable injury unless
26 MacroAir's continuing acts of infringement are enjoined by the Court. The
27 hardships that an injunction would impose are less than those faced by Big Ass Fans
28 should an injunction not issue. The public interest would be served by issuance of

1 an injunction.

2

3

COUNT 2

4

INFRINGEMENT OF THE '649 PATENT

5

37. Big Ass Fans incorporates by reference the allegations set forth in paragraphs 1 through 36 as though fully set forth herein.

7

38. On information and belief, MacroAir has infringed and continues to infringe and/or has induced infringement of one or more claims of the '649 patent, including at least claim 1, literally or under the doctrine of equivalents, by importing into the United States, and/or making, and/or using, and/or selling, and/or offering for sale in the United States, without authority or license, products including the X Series, Y Series, Z Series, AirVolution-D 780, AirVolution-D 550, AirVolution-D 370 fan systems and related components (collectively, the "'649 Accused Products"), in violation of 35 U.S.C. § 271.

15

39. On information and belief, MacroAir has directly infringed and continues to infringe one or more claims of the '649 patent, including at least claim 1, literally or under the doctrine of equivalents, by importing into the United States, and/or making, and/or using, and/or selling, and/or offering to sell in the United States, without authority or license, '649 Accused Products, in violation of 35 U.S.C. § 271(a). On information and belief, MacroAir uses '649 Accused Products through at least testing, evaluations, and demonstrations. For example, as part of its testing, sales, and customer-service activities, MacroAir performs infringing demonstrations, evaluations, and testing of '649 Accused Products at customer sites in the United States and at MacroAir's sites in the United States. On information and belief, MacroAir imports '649 Accused Products and MacroAir makes '649 Accused Products in the United States at its facility in San Bernardino, California. On information and belief, MacroAir sells '649 Accused Products. For example, MacroAir sells '649 Accused Products to customers in the United States through its

28

1 website and through its distributors. On information and belief, MacroAir offers
2 '649 Accused Products for sale. For example, MacroAir engages in sales,
3 marketing, and contracting activity in the United States and/or with United States
4 offices of its customers.

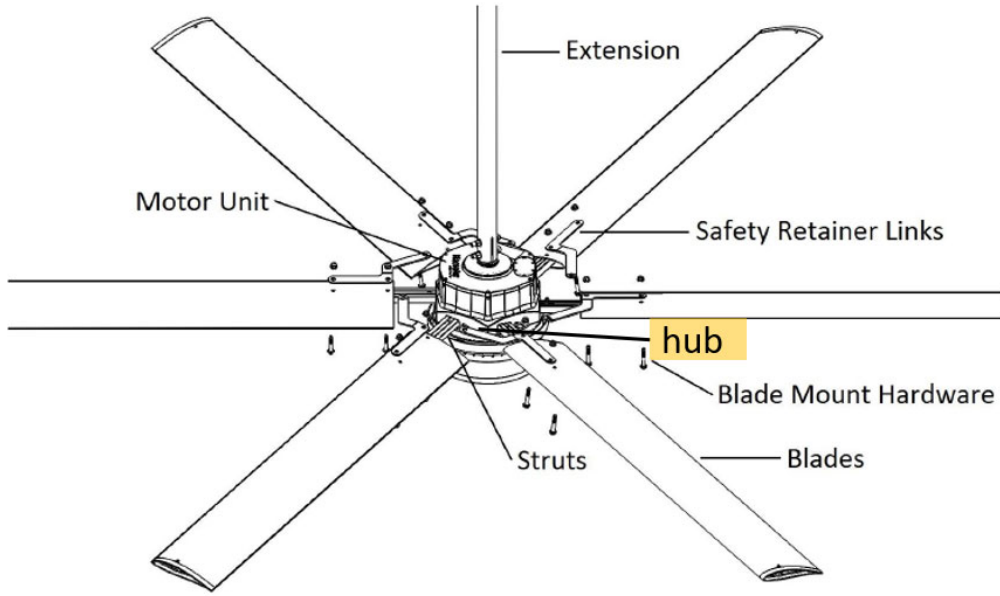
5 40. The '649 Accused Products meet all the limitations of at least claim 5
6 of the '649 patent. Specifically, claim 5 of the '649 patent claims the fan system of
7 claim 1, wherein the sensors further comprise an impact sensor to detect the impact
8 by an object against one of the fan blades or the fan system. Claim 1 claims a fan
9 system, wherein the fan system comprises: (a) a hub, wherein the hub is configured
10 to rotate; (b) a plurality of fan blades mounted to the hub; (c) a motor, wherein the
11 motor is in communication with the hub, wherein the motor is operable to rotate the
12 hub; (d) a motor control module in communication with the motor, wherein the
13 motor control module is configured to control operation of the motor; and (e) a
14 plurality of sensors, wherein the sensors are configured to sense a plurality of
15 parameters associated with operation of the fan system, wherein the sensors are in
16 communication with the motor control module, wherein the control module is
17 configured to stop rotation of the hub in response to a value communicated from the
18 one or more of the plurality of sensors exceeding a predetermined threshold value,
19 wherein the predetermined threshold value is representative of an occurrence of a
20 condition, wherein the condition is external of the fan system, such that the control
21 module is programmed with a control algorithm configured to stop rotation of the
22 hub in response to the occurrence of a condition that is external of the fan system.

23 41. The '649 Accused Products are fan systems or constitute components
24 of fan systems. Each of the '649 Accused Products is a different fan model sold by
25 MacroAir or a related component.

26 42. As shown in the exemplary image below, the '649 Accused Products
27 have a hub configured to rotate near the center of the fan system.

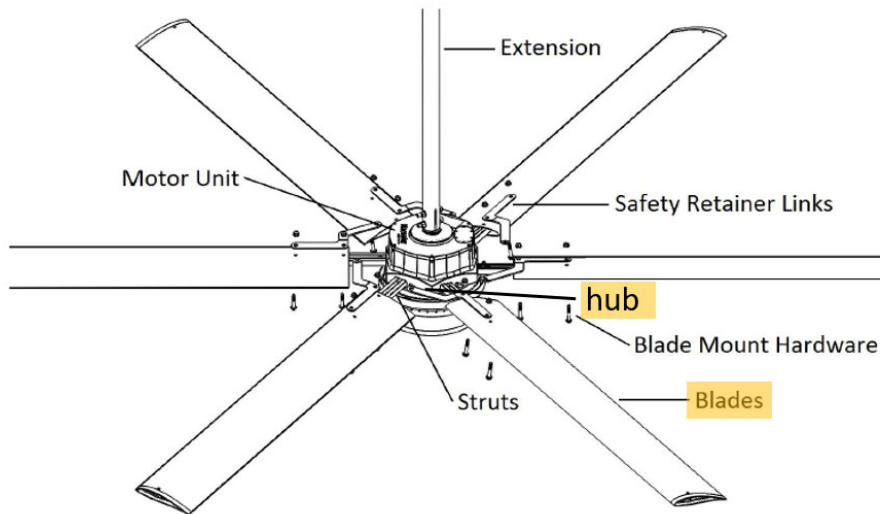
28

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28



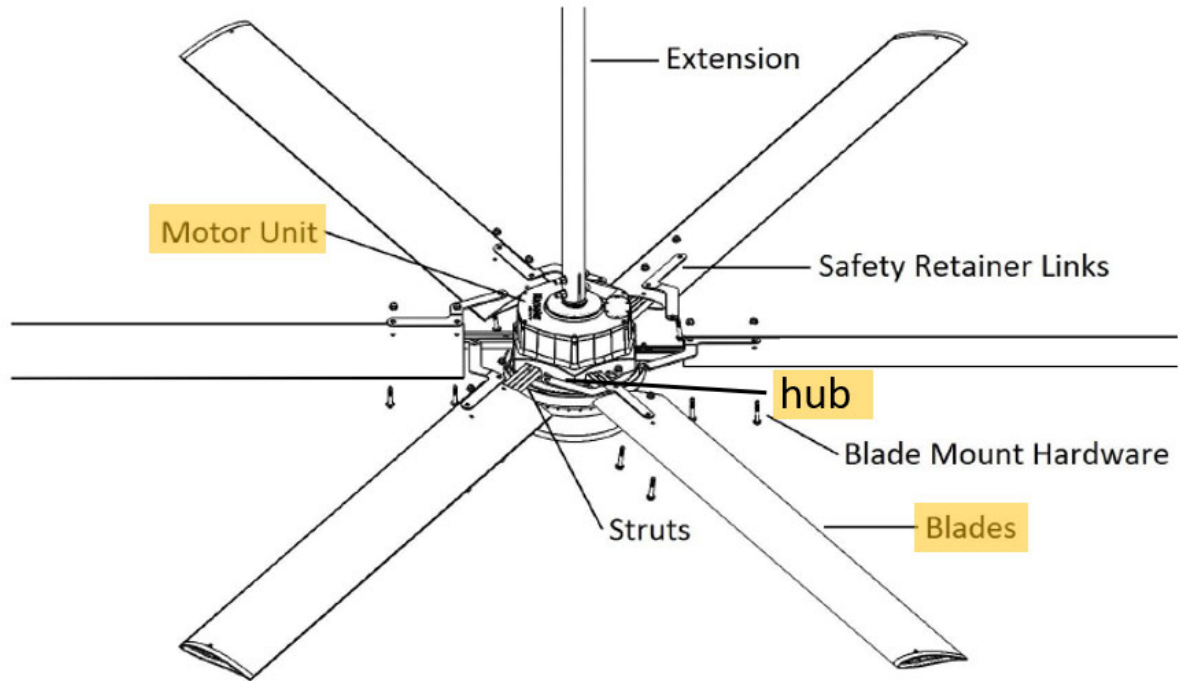
Schematic of MacroAir AirVolution-D 550/780 (from page 11 of AirVolution-D 550/780 Installation Manual located at <https://macroairfans.com/resources/>) (some annotations added)

43. As shown in the exemplary image below, the '649 Accused Products have fan blades mounted to the hub.



Schematic of MacroAir AirVolution-D 550/780 (from page 11 of AirVolution-D 550/780 Installation Manual located at <https://macroairfans.com/resources/>) (some annotations added)

1 44. As shown in the exemplary image below, the '649 Accused Products
 2 have a motor that communicates with and rotates the hub so that the fan blades will
 3 likewise rotate.



4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16 **Schematic of MacroAir AirVolution-D 550/780 (from page 11 of AirVolution-**
 17 **D 550/780 Installation Manual located at <https://macroairfans.com/resources/>)**
 18 **(some annotations added)**

19 45. The '649 Accused Products include a motor control module (e.g.,
 20 within the motor unit) in communication with the motor. The motor control module
 21 controls operation of the motor in causing the hub to rotate.

22 46. The '649 Accused Products include sensors (e.g., an impact sensor to
 23 detect the impact by an object against one of the fan blades or the fan system via the
 24 tilt that the fan system experiences as a result of this impact) that sense parameters
 25 associated with operation of the fan system. The sensors are in communication with
 26 the motor control module so that the motor control module can stop the hub from
 27 rotating when the sensors provide a value that exceeds a threshold. The value
 28 provided by the sensors indicates that some condition has occurred external to the

1 fan system.

2 47. The '649 Accused Products include an impact sensor to detect the
3 impact by an object against one of the fan blades or the fan system via the tilt that
4 the fan system experiences as a result of this impact.

5 48. Conventional fans were unable to sense conditions external to the fan.
6 Nor could they stop rotation of the hub in response to the occurrence of a condition
7 that is external of the fan system.

8 49. The inventions described in the claims of the '649 patent improved over
9 conventional technology by, for example, enabling safer fans that would shut down
10 quickly and automatically in unsafe situations.

11 50. On information and belief, MacroAir actively, knowingly, and
12 intentionally induces infringement of one or more claims of the '649 patent under
13 35 U.S.C. § 271(b) by actively encouraging others to import into the United States,
14 and/or make, use, sell, and/or offer to sell in the United States, '649 Accused
15 Products or products containing the infringing fan system components of '649
16 Accused Products. For example, MacroAir representatives travel to customer and
17 distributor sites in the United States for sales and support activity that includes
18 working with customers and distributors to facilitate their infringing testing,
19 installation, marketing, and sales activity. On information and belief, MacroAir
20 supplies customers and distributors with '649 Accused Products. On information
21 and belief, a significant portion of MacroAir's net revenue in 2019 was generated
22 from contracts with customers in the United States. MacroAir additionally attends
23 conferences such as the International Health, Racquet & Sportsclub Association
24 (IHRSA) conference with the goal of promoting its fan systems. MacroAir Fans
25 IHRSA 2019 Advertisement,
26 https://www.youtube.com/watch?v=c3SUDMWymDs&feature=emb_rel_end (last
27 visited April 8, 2020). MacroAir leverages these events to publicize technological
28 advances and design updates to potential customers and partners in the United States,

1 including '649 Accused Products.

2 51. MacroAir had knowledge of the '649 patent and that its activities
3 infringe the '649 patent since at least April 27, 2017. MacroAir has also known or
4 should have known since at least April 27, 2017 that its customers, distributors, and
5 other purchasers of '649 Accused Products are infringing the '649 patent at least
6 because MacroAir has known that it is infringing the '649 patent. For example,
7 MacroAir searched for patents assigned to Big Ass Fans and generated a spreadsheet
8 of these patents, including the '649 patent, by April 27, 2017. MacroAir was also
9 aware of the '649 patent by at least April 8, 2020, when Big Ass Fans disclosed, by
10 filing this Complaint, the existence of the '649 patent and identified at least some of
11 MacroAir's activities that infringe the '649 patent.

12 52. On information and belief, at least since April 27, 2017, MacroAir has
13 continued to make, use, sell, and/or offer for sale '649 Accused Products in the
14 United States, and/or import '649 Accused Products into the United States despite
15 its knowledge of the '649 patent and its infringement of that patent, and has
16 continued to induce infringement of the '649 patent. MacroAir's ongoing
17 infringement is willful.

18 53. Other entities directly infringe the '649 patent by making, using,
19 offering to sell, and/or selling at least some '649 Accused Products in the United
20 States and by importing '649 Accused Products into the United States. For example,
21 MacroAir's customer, a major aerospace company, has infringed and continues to
22 infringe one or more claims of the '649 patent, including at least claim 5, literally or
23 under the doctrine of equivalents, at least under 35 U.S.C. § 271(a) by importing into
24 the United States, and/or using, and/or selling, and/or offering for sale in the United
25 States, without authority or license, certain '649 Accused Products. In particular,
26 this major aerospace company uses these '649 Accused Products in at least one
27 facility.

28 54. MacroAir was aware of the '649 patent and its and others' infringement

1 by at least April 27, 2017. Additionally, by at least April 8, 2020, Big Ass Fans
2 disclosed, by filing this Complaint, the existence of the '649 patent and identified at
3 least some of this major aerospace company's and others' activities that infringe the
4 '649 patent. Thus MacroAir had knowledge of the '649 patent and others' direct
5 infringement of the '649 patent since at least April 27, 2017.

6 55. Big Ass Fans has suffered and continues to suffer damages as a result
7 of MacroAir's infringement of the '649 patent.

8 56. MacroAir's continuing acts of infringement are a basis of consumer
9 demand for '649 Accused Products and have irreparably harmed Big Ass Fans
10 through at least loss of market share and customer relationships. Big Ass Fans has
11 no adequate remedy at law, and will continue to suffer such irreparable injury unless
12 MacroAir's continuing acts of infringement are enjoined by the Court. The
13 hardships that an injunction would impose are less than those faced by Big Ass Fans
14 should an injunction not issue. The public interest would be served by issuance of
15 an injunction.

16 **COUNT 3**

17 **INFRINGEMENT OF THE '041 PATENT**

18 57. Big Ass Fans incorporates by reference the allegations set forth in
19 paragraphs 1 through 56 as though fully set forth herein.

20 58. On information and belief, MacroAir has infringed and continues to
21 infringe and/or has induced infringement of one or more claims of the '041 patent,
22 including at least claim 1, literally or under the doctrine of equivalents, by importing
23 into the United States, and/or making, and/or using, and/or selling, and/or offering
24 for sale in the United States, without authority or license, products including the X
25 Series, Y Series, Z Series, AirVolution-D 780, AirVolution-D 550, AirVolution-D
26 370 fan systems and related components (collectively, the "'041 Accused
27 Products"), in violation of 35 U.S.C. § 271.

28 59. On information and belief, MacroAir has directly infringed and

1 continues to infringe one or more claims of the '041 patent, including at least claim
2 1, literally or under the doctrine of equivalents, by importing into the United States,
3 and/or making, and/or using, and/or selling, and/or offering to sell in the United
4 States, without authority or license, '041 Accused Products, in violation of 35 U.S.C.
5 § 271(a). On information and belief, MacroAir uses '041 Accused Products through
6 at least testing, evaluations, and demonstrations. For example, as part of its testing,
7 sales, and customer-service activities, MacroAir performs infringing
8 demonstrations, evaluations, and testing of '041 Accused Products at customer sites
9 in the United States and at MacroAir's sites in the United States. On information
10 and belief, MacroAir imports '041 Accused Products and MacroAir makes '041
11 Accused Products in the United States at its facility in San Bernardino, California.
12 On information and belief, MacroAir sells '041 Accused Products. For example,
13 MacroAir sells '041 Accused Products to customers in the United States through its
14 website and through its distributors. On information and belief, MacroAir offers
15 '041 Accused Products for sale. For example, MacroAir engages in sales,
16 marketing, and contracting activity in the United States and/or with United States
17 offices of its customers.

18 60. The '041 Accused Products meet all the limitations of at least claim 1
19 of the '041 patent. Specifically, claim 1 of the '041 patent claims a fan system
20 installed in a location having a floor and a ceiling, the fan system comprising: (a) a
21 rotatable hub; (b) plurality of fan blades secured to the hub; (c) a motor in
22 communication with the hub, wherein the motor is operable to drive the hub at a
23 selectable rate of rotation; (d) a motor controller in communication with the motor,
24 wherein the motor controller is configured to select the rate of rotation at which the
25 motor drives the hub; (e) an upper temperature sensor positioned near the ceiling,
26 wherein the upper temperature sensor is configured to sense the temperature of air
27 near the ceiling, wherein the upper temperature sensor is in communication with the
28 motor controller; (f) a lower temperature sensor positioned near the floor, wherein

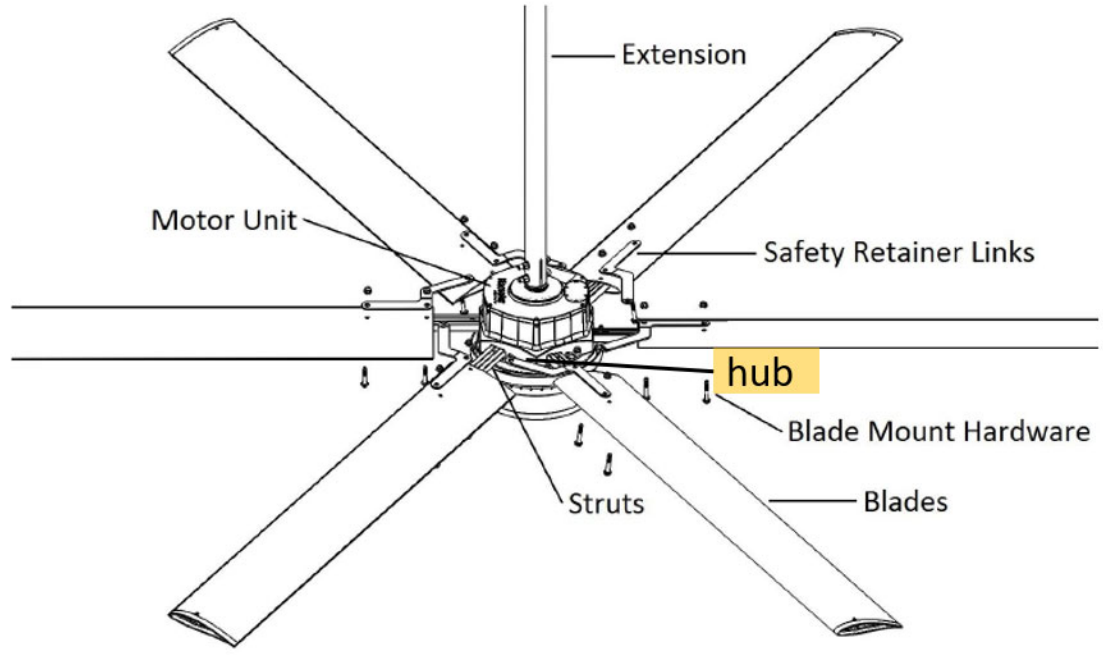
1 the lower temperature sensor is configured to sense the temperature of air near the
2 floor, wherein the lower temperature sensor is in communication with the motor
3 controller; wherein the motor controller is configured to automatically adjust the rate
4 of rotation at which the motor drives the hub from a first non-zero rate of rotation to
5 a second non-zero rate of rotation based at least in part on differences between
6 temperatures communicated from the upper temperature sensor and temperatures
7 communicated from the lower temperature sensor; and (g) a humidity sensor,
8 wherein the humidity sensor is configured to sense relative humidity comprising at
9 least a first value and a second value, wherein the second value is greater than the
10 first value, wherein the humidity sensor is in communication with the motor
11 controller, wherein the motor controller is configured to automatically adjust the rate
12 of rotation at which the motor drives the hub from a third non-zero rate of rotation
13 to a fourth non-zero rate of rotation based further at least in part on a humidity level
14 communicated from the humidity sensor; wherein the motor controller is operable
15 to adjust the rate of rotation at which the motor drives the hub to increase or decrease
16 the rate of rotation in response to an increase in relative humidity communicated
17 from the humidity sensor.

18 61. The '041 Accused Products are fan systems or constitute components
19 of fan systems installed in a location with a floor and ceiling. Each of the '041
20 Accused Products is a different fan model sold by MacroAir or a related component.

21 62. As shown in the exemplary image below, the '041 Accused Products
22 have a rotatable hub configured to rotate near the center of the fan system.

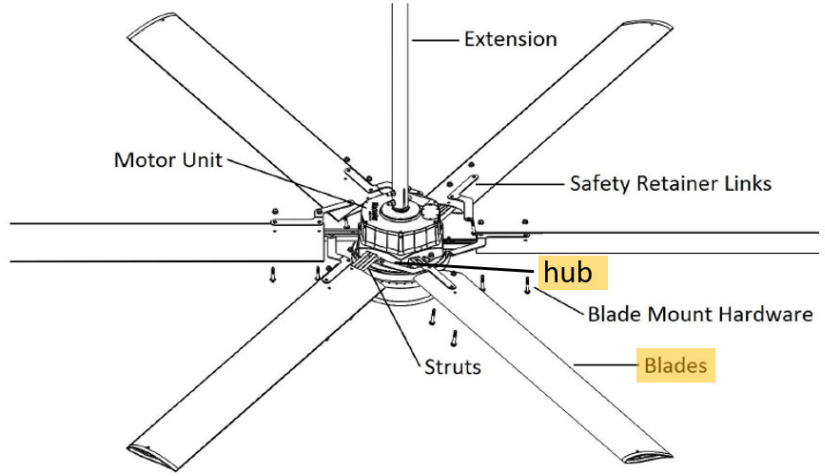
23
24
25
26
27
28

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28



Schematic of MacroAir AirVolution-D 550/780 (from page 11 of AirVolution-D 550/780 Installation Manual located at <https://macroairfans.com/resources/>) (some annotations added)

63. As shown in the exemplary image below, the '041 Accused Products have fan blades secured to the hub.



Schematic of MacroAir AirVolution-D 550/780 (from page 11 of AirVolution-D 550/780 Installation Manual located at <https://macroairfans.com/resources/>) (some annotations added)

1 e.g., <https://macroairfans.com/controls-automation/aireffect/> (last visited April 8,
2 2020) (“AirEffect gauges the heat index by measuring the temperature and humidity
3 at the ceiling and floor.”). This sensor is in communication with the motor
4 controller. *See, e.g., id.*

5 68. The motor controller of the '041 Accused Products automatically
6 adjusts the rate of rotation at which the motor drives the hub based on differences
7 between temperatures communicated from the upper temperature sensor and
8 temperatures communicated from the lower temperature sensor. *See, e.g.,*
9 <https://macroairfans.com/controls-automation/aireffect/> (last visited April 8, 2020)
10 (“Best operating direction and speed are determined.”).

11 69. The '041 Accused Products include a humidity sensor that senses
12 different values of relative humidity. *See, e.g.,* [https://macroairfans.com/controls-](https://macroairfans.com/controls-automation/aireffect/)
13 [automation/aireffect/](https://macroairfans.com/controls-automation/aireffect/) (last visited April 8, 2020) (“AirEffect gauges the heat index
14 by measuring the temperature and humidity at the ceiling and floor.”). This sensor
15 is in communication with the motor controller. *See, e.g., id.*

16 70. The motor controller of the '041 Accused Products automatically
17 adjusts the rate of rotation at which the motor drives the hub based further at least in
18 part on a humidity level communicated from the humidity sensor. *See, e.g.,*
19 <https://macroairfans.com/controls-automation/aireffect/> (last visited April 8, 2020)
20 (“AirEffect’s software ... calculates the heat index to understand what the
21 temperature feels like, due to humidity, rather than just the air temperature.”).

22 71. The motor controller of the '041 Accused Products adjusts the rate of
23 rotation at which the motor drives the hub to increase or decrease the rate of rotation
24 in response to an increase in relative humidity communicated from the humidity
25 sensor. *See, e.g., id.*

26 72. As the specification of the '041 patent explains, “natural convection
27 may cause the air to stratify, with the warmest layers at the top adjacent to the roof
28 and the coolest layers at the floor.” '041 patent at 2:14-26. The '041 patent

1 recognizes that it is desirable to maintain a uniform air temperature throughout an
2 enclosure by mixing the heated air above with the cooler air below. *Id.* at 2:27-31.

3 73. Conventional fans lacked sensors that would allow them to de-stratify
4 the air around them to, for example, provide a more uniform temperature distribution
5 within that environment. They further lacked the combination of temperature and
6 humidity sensor placement and calculation based on these sensors' outputs described
7 and claimed in the '041 patent. This inventive combination uses sensors in a non-
8 conventional manner to allow the claimed fan to efficiently, effectively, and
9 automatically de-stratify the air surrounding it.

10 74. The dependent claims of the '041 patent further improved over the
11 conventional technology by, for example, providing additional enhancements to the
12 efficiency and effectiveness with which the claimed invention de-stratifies the air
13 around it.

14 75. On information and belief, MacroAir actively, knowingly, and
15 intentionally induces infringement of one or more claims of the '041 patent under
16 35 U.S.C. § 271(b) by actively encouraging others to import into the United States,
17 and/or make, use, sell, and/or offer to sell in the United States, '041 Accused
18 Products or products containing the infringing fan system components of the '041
19 Accused Products. For example, MacroAir representatives travel to customer and
20 distributor sites in the United States for sales and support activity that includes
21 working with customers and distributors to facilitate their infringing testing,
22 installation, marketing, and sales activity. On information and belief, MacroAir
23 supplies customers and distributors with '041 Accused Products. On information
24 and belief, a significant portion of MacroAir's net revenue in 2019 was generated
25 from contracts with customers in the United States. MacroAir additionally attends
26 conferences such as the International Health, Racquet & Sportsclub Association
27 (IHRSA) conference with the goal of promoting its fan systems. MacroAir Fans
28 IHRSA 2019 Advertisement, <https://www.youtube.com/watch?v=>

1 c3SUDMWymDs&feature=emb_rel_end (last visited April 8, 2020). MacroAir
2 leverages these events to publicize technological advances and design updates to
3 potential customers and partners in the United States, including '041 Accused
4 Products.

5 76. MacroAir had knowledge of the '041 patent and that its activities
6 infringe the '041 patent since at least April 27, 2017. MacroAir has also known or
7 should have known since at least April 27, 2017 that its customers, distributors, and
8 other purchasers of '041 Accused Products are infringing the '041 patent at least
9 because MacroAir has known that it is infringing the '041 patent. For example,
10 MacroAir searched for patents assigned to Big Ass Fans and generated a spreadsheet
11 of these patents, including the '041 patent, by April 27, 2017. MacroAir was also
12 aware of the '041 patent by at least April 8, 2020, when Big Ass Fans disclosed, by
13 filing this Complaint, the existence of the '041 patent and identified at least some of
14 MacroAir's activities that infringe the '041 patent.

15 77. On information and belief, at least since April 27, 2017, MacroAir has
16 continued to make, use, sell, and/or offer for sale '041 Accused Products in the
17 United States, and/or import '041 Accused Products into the United States despite
18 its knowledge of the '041 patent and its infringement of that patent, and has
19 continued to induce infringement of the '041 patent. MacroAir's ongoing
20 infringement is willful.

21 78. Other entities directly infringe the '041 patent by making, using,
22 offering to sell, and/or selling at least some '041 Accused Products in the United
23 States and by importing '041 Accused Products into the United States. For example,
24 MacroAir's customer, a major aerospace company, has infringed and continues to
25 infringe one or more claims of the '041 patent, including at least claim 1, literally or
26 under the doctrine of equivalents, at least under 35 U.S.C. § 271(a) by importing into
27 the United States, and/or using, and/or selling, and/or offering for sale in the United
28 States, without authority or license, certain '041 Accused Products. In particular,

1 this major aerospace company uses these '041 Accused Products in at least one
2 facility.

3 79. MacroAir was aware of the '041 patent and its and others' infringement
4 by at least April 27, 2017. Additionally, by at least April 8, 2020, Big Ass Fans
5 disclosed, by filing this Complaint, the existence of the '041 patent and identified at
6 least some of this major aerospace company's and others' activities that infringe the
7 '041 patent. Thus MacroAir had knowledge of the '041 patent and others' direct
8 infringement of the '041 patent since at least April 27, 2017.

9 80. Big Ass Fans has suffered and continues to suffer damages as a result
10 of MacroAir's infringement of the '041 patent.

11 81. MacroAir's continuing acts of infringement are a basis of consumer
12 demand for '041 Accused Products and have irreparably harmed Big Ass Fans
13 through at least loss of market share and customer relationships. Big Ass Fans has
14 no adequate remedy at law, and will continue to suffer such irreparable injury unless
15 MacroAir's continuing acts of infringement are enjoined by the Court. The
16 hardships that an injunction would impose are less than those faced by Big Ass Fans
17 should an injunction not issue. The public interest would be served by issuance of
18 an injunction.

19 **JURY DEMAND**

20 82. Big Ass Fans demands a jury trial as to all issues that are triable by a
21 jury in this action.

22 **PRAYER FOR RELIEF**

23 WHEREFORE, Big Ass Fans respectfully prays for relief as follows:

- 24 (a) Judgment that MacroAir is liable for infringement and/or inducing the
25 infringement of one or more claims of each of the Asserted Patents;
26 (b) An Order permanently enjoining MacroAir and its respective officers,
27 agents, employees, and those acting in privity or in active concert or
28 participation with it, from further infringement of the Asserted Patents;

- 1 (c) Compensatory damages in an amount according to proof, including lost
- 2 profits, and in any event no less than a reasonable royalty;
- 3 (d) Treble damages for willful infringement since at least April 27, 2017;
- 4 (e) Pre-judgment interest;
- 5 (f) Post-judgment interest;
- 6 (g) Attorneys' fees based on this being an exceptional case pursuant to
- 7 35 U.S.C. § 285, including pre-judgment interest on such fees;
- 8 (h) An accounting and/or supplemental damages for all damages occurring
- 9 after any discovery cutoff and through final judgment;
- 10 (i) Costs and expenses in this action; and
- 11 (j) Any further relief that the Court deems just and proper.

12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

Dated: February 3, 2021

Respectfully submitted,

LATHAM & WATKINS LLP

By /s/ Kyle A. Virgien

Clement J. Naples (*pro hac vice*)
clement.naples@lw.com
LATHAM & WATKINS LLP
885 Third Avenue
New York, NY 10022
Phone: (212) 906-1200
Fax: (212) 751-4864

Jennifer L. Barry (CA 228066)
jennifer.barry@lw.com
LATHAM & WATKINS LLP
12670 High Bluff Drive
San Diego, CA 92130
Phone: (858) 523-5400
Fax: (858) 523-5450

Kyle A. Virgien (CA 278747)
kyle.virgien@lw.com
LATHAM & WATKINS LLP
505 Montgomery St, Suite 2000
San Francisco, CA 94111
Phone: (415) 391-0600
Fax: (415) 395-8095

Thomas W. Yeh (CA 287118)
thomas.yeh@lw.com
LATHAM & WATKINS LLP
355 South Grand Avenue, Suite 100
Los Angeles, CA 90071
Phone: (213) 485-1234
Fax: (213) 891-8763

Surendra K. Ravula (*pro hac vice*)
surendrakumar.ravula@lw.com
LATHAM & WATKINS LLP
330 N Wabash Avenue, Suite 2800
Chicago, IL 60611
Phone: (312) 876-7700
Fax: (312) 993-9767

Attorneys for Plaintiff, DELTA T
LLC D/B/A BIG ASS FANS