

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION**

MIRACOR MEDICAL SA,

Plaintiff,

v.

ABBOTT LABORATORIES AND  
THORATEC LLC,

Defendants.

Civil Action No. 1:23-cv-16257

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Miracor Medical SA (“Miracor” or “Plaintiff”) files this Complaint and demand for a jury trial seeking relief for patent infringement by Defendants Abbott Laboratories and Thoratec LLC (collectively, “Abbott” or “Defendants”). Plaintiff states and alleges the following:

**THE PARTIES**

1. Miracor Medical SA is an entity organized and existing under the laws of Belgium, with its principal place of business located at Rue de Bruxelles 174, E40 Business Park, 4340 Awans, Belgium. Miracor is a medical device technology company created for the purpose of developing solutions to treat severe heart diseases, and for the protection and licensing of any resulting inventions and intellectual property.

2. Miracor was originally founded in 2008 by Professor Werner Mohl, MD, PhD. Professor Mohl is an Austrian cardiac surgeon with over 45 years of experience, who earned both his medical degree and PhD at the University of Vienna in the 1970s. He remained at the University of Vienna throughout his medical career, completing two surgical residencies that spanned most of the 1970s and 1980s before becoming Professor of Surgery in 1990. Professor

Mohl currently serves as Professor Emeritus for the Department of Cardiothoracic Surgery at the University of Vienna.

3. Professor Mohl is a named inventor on more than 45 issued patents in the United States directed to devices and methods for treating heart disease.

4. Professor Mohl has authored more than 100 peer reviewed journal articles, conference papers, and book chapters, including articles in leading scientific and medical publications such as *Frontiers in Cardiovascular Medicine*, *Journal of the American College of Cardiology*, *European Journal of Heart Failure*, *European Surgery*, and *The International Journal of Artificial Organs*.

5. Professor Mohl has received several awards for his work as a surgeon and inventor. For example, he received the 2020 InnoVasc Innovation Award in Barcelona, the 2019 Science and Business Award known as the Rudolf Sallinger Founder's Prize, the 2018 Phoenix Prize for prototype innovation, the 2011 Future Prize of the City of Vienna, and the 1991 Franz J. Köhler Prize from the German Society for Thoracic, Cardiac, and Vascular Surgery.

6. When Professor Mohl founded Miracor in 2008, he assigned Miracor all of his rights to the patents currently asserted in this case. Professor Mohl originally served on the board at Miracor and later served as an observer of the board. He is now a scientific consultant for Miracor.

7. Since its founding, Miracor has developed various technologies for assisting the performance of the heart. These have included devices and systems for pumping blood to assist the function of a heart, such as Left Ventricular Assist Devices (LVADs) and Left Ventricular Assist Systems (LVASs).

8. Miracor has also developed other technologies for use in treating acute coronary syndrome and heart failure. For example, Miracor developed a system called PiCSO (Pressure-controlled intermittent Coronary Sinus Occlusion). Miracor's PiCSO Impulse System uses a precisely-controlled catheter balloon to intermittently occlude blood outflow from heart tissue, restoring blood flow to deprived heart tissue when the balloon is inflated, and enhancing the washout of deleterious agents from the heart tissue when the balloon is deflated.

9. Miracor has actively developed its PiCSO Impulse System over the past several years. For example, the PiCSO Impulse System has been the subject of multiple clinical studies which have shown statistically significant improvements in infarct size reduction and the index of microcirculatory resistance. Miracor has also received multiple rounds of funding for its development of the PiCSO Impulse System, including Series-D funding in 2018 and Series-E funding in 2020, totaling over \$50 million. In 2020, Miracor received the CE mark for its PiCSO Impulse System, certifying the PiCSO technology for commercialization in Europe.

10. Although Miracor is a Belgian company, its operations extend to the United States. In August 2019, the FDA granted Miracor the Breakthrough Device Designation for its PiCSO Impulse System. Also, in August 2022, Miracor received FDA IDE approval for a clinical study of its PiCSO Impulse System in the United States. The Principal Investigator of this study is Dr. Gregg W. Stone, a member of Miracor's advisory team based in New York City.

11. Miracor's patent portfolio includes various inventions directed to devices and methods for assisting and/or improving the performance of a heart. These include inventions Miracor developed as its PiCSO Impulse System, as well as various inventions aimed at systems and methods for LVAD/LVAS technology. Miracor's asserted patents in this case, discussed in

more detail below, include inventions for which Professor Mohl filed for patent protection no later than February 2007.

12. On information and belief, Defendant Abbott Laboratories is an Illinois corporation having a principal place of business at 100 Abbott Park Road, Abbott Park, Illinois 60064.

13. On information and belief, Defendant Thoratec LLC is a California limited liability company having principal places of business located at 6035 Stoneridge Drive, Pleasanton, California 94588 and at 100 Abbott Park Road, Abbott Park, Illinois 60064. On information and belief, the sole member of Thoratec LLC is SJM Thunder Holding Company (“SJM Thunder”). SJM Thunder is a Delaware corporation and its principal place of business is located in Illinois. Accordingly, Thoratec LLC is a citizen of Delaware and Illinois.

14. On information and belief, Thoratec LLC and SJM Thunder are both wholly-owned subsidiaries of Abbott Laboratories.

15. On information and belief, Defendants Abbott Laboratories and Thoratec LLC operate in concert to make, use, sell, offer for sale, and/or import devices for assisting the performance of a heart throughout the United States, including devices that comprise LVAD/LVAS products such as the accused HeartMate 3 LVAS products identified herein.

### **JURISDICTION AND VENUE**

16. This is a civil action for patent infringement under the patent laws of the United States, 35 U.S.C. § 271, *et seq.* This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338.

17. This Court has general personal jurisdiction over Abbott Laboratories because it is an Illinois corporation; because it has a regular and established place of business in the Northern District of Illinois; because it regularly conducts business in the State of Illinois and therefore has

substantial and continuous contacts within this judicial District; because it has purposefully availed itself of the privileges of conducting business in this judicial District; and/or because it has committed acts of infringement in this judicial District giving rise to this action.

18. This Court has general personal jurisdiction over Thoratec LLC because it has a regular and established place of business in the Northern District of Illinois; because it regularly conducts business in the State of Illinois and therefore has substantial and continuous contacts within this judicial District; because it has purposefully availed itself of the privileges of conducting business in this judicial District; and/or because it has committed acts of infringement in this judicial District giving rise to this action.

19. Venue is proper in this judicial District pursuant to 35 U.S.C. § 1400(b).

#### **ASSERTED PATENTS**

20. On June 7, 2022, United States Patent No. 11,351,356 (“the ’356 patent”) entitled “Device to Assist the Performance of a Heart” was duly and legally issued by the United States Patent and Trademark Office. Miracor owns the ’356 patent by assignment. A true and correct copy of the ’356 patent is attached as Exhibit 1.

21. On June 7, 2022, United States Patent No. 11,351,357 (“the ’357 patent”) entitled “Device to Assist the Performance of a Heart” was duly and legally issued by the United States Patent and Trademark Office. Miracor owns the ’357 patent by assignment. A true and correct copy of the ’357 patent is attached as Exhibit 2.

22. On July 5, 2022, United States Patent No. 11,376,415 (“the ’415 patent”) entitled “Device to Assist the Performance of a Heart” was duly and legally issued by the United States Patent and Trademark Office. Miracor owns the ’415 patent by assignment. A true and correct copy of the ’415 patent is attached as Exhibit 3.

23. On February 7, 2023, United States Patent No. 11,572,879 (“the ’879 patent”) entitled “Device to Assist the Performance of a Heart” was duly and legally issued by the United States Patent and Trademark Office. Miracor owns the ’879 patent by assignment. A true and correct copy of the ’879 patent is attached as Exhibit 4.

24. On June 13, 2023, United States Patent No. 11,674,517 (“the ’517 patent”) entitled “Device to Assist the Performance of a Heart” was duly and legally issued by the United States Patent and Trademark Office. Miracor owns the ’517 patent by assignment. A true and correct copy of the ’517 patent is attached as Exhibit 5.

25. On September 12, 2023, United States Patent No. 11,754,077 (“the ’077 patent”) entitled “Device to Assist the Performance of a Heart” was duly and legally issued by the United States Patent and Trademark Office. Miracor owns the ’077 patent by assignment. A true and correct copy of the ’077 patent is attached as Exhibit 6.

### **BACKGROUND**

26. On information and belief, Abbott has been aware of certain inventions claimed and described in Miracor’s patent portfolio since at least December 2022, including Miracor’s then-issued ’356, ’357, and ’415 patents.

27. For example, on information and belief, Olivier Delporte, CEO of Miracor, informed representatives of Abbott at least as early as December 2022 that Miracor owned LVAS/LVAD-related patents relevant to Abbott’s products. Also in December 2022, Mr. Delporte met with Dr. Nick West, then Chief Medical Officer and Deputy Vice President Global Medical Affairs for the Vascular group at Abbott. On information and belief, during that discussion, Mr. Delporte informed Dr. West that Miracor owned non-PiCSO, LVAS-related IP that could be

relevant to Abbott's Heart Failure Group. On information and belief, in January 2023, Dr. West informed Mr. Delporte that he had passed on this information about Miracor's IP to Mark Williams, then Director of Business Development for the Vascular group at Abbott.

28. Also, on information and belief, Mr. Delporte informed additional Abbott representatives about Miracor's LVAS/LVAD-related patents in January 2023. For example, that month Mr. Delporte sent an email to Dr. John M. Capek, Executive Vice President of Ventures at Abbott. In that email, Mr. Delporte stated that Miracor owned LVAD-related IP that they believed could be relevant to Abbott. On information and belief, later in January 2023, Mr. Delporte and Dr. Capek met in San Francisco and further discussed Miracor's LVAS/LVAD patents, and Mr. Delporte informed Dr. Capek that Miracor had plans to develop an LVAD/LVAS device. On information and belief, during that meeting in January 2023, Dr. Capek told Mr. Delporte that he would discuss this IP with Abbott's Heart Failure Group. After that meeting, Mr. Delporte never heard back from Dr. Capek or anyone from Abbott's Heart Failure Group.

29. Ultimately, Abbott never offered to license or commercialize any of Miracor's intellectual property. Miracor never entered into a business relationship with any Abbott entity, and no Abbott entity ever obtained a license to any of Miracor's patents.

### **COUNT I**

#### **(Patent Infringement of United States Patent No. 11,351,356)**

30. Plaintiff restates and realleges the preceding paragraphs of this Complaint.

31. Abbott has directly infringed, and continues to directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '356 patent by performing within the United States Abbott's '356 Accused Methods pursuant to 35 U.S.C. § 271(a). Abbott's '356 Accused Methods include the implantation and assembly of Abbott's HeartMate 3 LVAS

(“HeartMate 3”) products (and any other Abbott products, either alone or in combination, that operate in a reasonably similar manner) in ways that perform the claimed steps of one or more claims of the ’356 patent.

32. For example, Abbott has been and is performing within the United States the ’356 Accused Methods, which infringe at least exemplary claim 1 of the ’356 patent. The claim chart attached hereto as Exhibit 7 describes how the exemplary ’356 Accused Methods perform every step of exemplary claim 1 of the ’356 patent. On information and belief, Abbott has performed the ’356 Accused Methods within the United States at least during its development, testing, and/or demonstration of its HeartMate 3 products.

33. Abbott also indirectly infringes the ’356 patent by actively inducing direct infringement by third parties under 35 U.S.C. § 271(b). For example, on information and belief, Abbott has encouraged, aided, or otherwise caused third parties such as doctors and other medical institutions to perform within the United States the ’356 Accused Methods (which are acts of direct infringement of the ’356 patent), as detailed below.

34. Abbott has knowledge that these third-party activities concerning Abbott’s ’356 Accused Methods infringe at least claim 1 of the ’356 patent. For example, Abbott has had knowledge of the ’356 patent at least since shortly after it issued in June 2022 or was willfully blind to the existence of the patent. Also, Abbott had knowledge of the ’356 patent in the December 2022-January 2023 time frame, when Miracor informed Abbott that it owned several issued U.S. patents relevant to Abbott’s LVAD/LVAS devices, as set forth above. Also, Abbott has had knowledge that Abbott’s ’356 Accused Methods infringe the ’356 patent and obtained this knowledge prior to suit. In addition, Abbott obtained this knowledge no later than upon the filing and service of this Complaint as demonstrated by the attached claim chart. To the extent that



Abbott did not have actual knowledge of its infringement prior to filing and service of the Complaint and claim charts, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts. Abbott, therefore, had knowledge that its customers' performance of Abbott's '356 Accused Methods infringes the '356 patent or it was otherwise willfully blind to that fact.

35. Abbott has and will continue to encourage, aid, or otherwise cause these third parties to implant and assemble the HeartMate 3 products such that they perform the '356 Accused Methods (which are acts of direct infringement of the '356 patent) within the United States and Abbott has and will continue to encourage those acts with the specific intent to infringe one or more claims of the '356 patent. Further, Abbott provides information and technical support to its customers (such as doctors and other medical institutions), including product manuals, brochures, videos, demonstrations, and website materials encouraging its customers to purchase and instructing them to use Abbott's HeartMate 3 products with knowledge that usage in accordance with their instructions constitutes an act of direct infringement of the '356 patent, or with willful blindness to that fact. Alternatively, Abbott knows and/or will know that there is a high probability that performing the '356 Accused Methods to implant and assemble the HeartMate 3 products constitutes direct infringement of the '356 patent, but took deliberate actions to avoid learning of these facts.

36. On information and belief, Abbott, for example, encourages doctors and other medical institutions to purchase Abbott's HeartMate 3 products and perform the '356 Accused Methods to implant and assemble these products to assist the performance of a heart. The performance of the '356 Accused Methods in the United States constitutes an act of direct infringement under 35 U.S.C. § 271(a). On its website, Abbott encourages doctors to implement

its '356 Accused Methods—doctors in the United States perform surgeries using the HeartMate 3 products to perform the '356 Accused Methods, and thus are direct infringers of the '356 patent. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html><sup>1</sup>.

37. Abbott provides information and technical support to its customers (such as doctors and other medical institutions), including product manuals, videos, and website materials encouraging its customers to purchase its HeartMate 3 products and instructing them to implant and assemble those products using Abbott's '356 Accused Methods. This information and support is found, for example, on Abbott's website. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>; <https://www.cardiovascular.abbott/us/en/hcp/manuals-and-technical-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/education-training.html>; <https://manuals.sjm.com/Search-Form?re=North-America&cc=US&ln=EN&ct=professional&qry=heartmate&ipp=10>; [https://youtu.be/\\_C-K-DCINbI](https://youtu.be/_C-K-DCINbI); *see also* Exhibit 8 (PDF printouts of Abbott web pages relating to HeartMate 3); HeartMate 3 Instructions for Use, available for download at <https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf>.

38. Abbott's individual product pages provide direction on the use of Abbott products, including photographs and videos. *See, e.g.,*

---

<sup>1</sup> All hyperlinks cited herein were last accessed 20 November, 2023.

<https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>; <https://www.cardiovascular.abbott/us/en/hcp/manuals-and-technical-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/education-training.html>; *see also* Exhibit 8.

39. Abbott products are described in catalogs and manuals directed towards healthcare professionals. *See, e.g.*, <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; Abbott Heart Failure Product Catalog, available for download at <https://www.cardiovascular.abbott/content/dam/cv/cardiovascular/hcp/documents/us-hf-product-cat.pdf>; HeartMate 3 Instructions for Use, available for download at <https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf>. On information and belief, Abbott products are also described in journals directed toward healthcare professionals, including without limitation, *The New England Journal of Medicine*, *The American Society for Artificial Internal Organs*, and *Artificial Organs*.

40. Abbott has also indirectly infringed and continues to indirectly infringe the '356 patent under 35 U.S.C. § 271(c) because it has contributed to direct infringement, and continues to contribute to direct infringement, by third parties (such as doctors and other medical institutions), of at least claim 1 of the '356 patent. For example, on information and belief, Abbott has sold, offered for sale, and/or imported into the United States and is currently selling, offering for sale, and/or importing into the United States various components of the HeartMate 3 products (including the HeartMate 3 LVAD blood pump and HeartMate 3 System Controller) to these third

parties, for use in the '356 Accused Methods. These third parties perform the '356 Accused Methods to implant and assemble the blood pump device and system controller of the HeartMate 3 product according to instructions, documentation, tutorials, marketing materials and the like that instructed/instruct them how to arrange these components in ways that infringed/infringe the '356 patent. Abbott's components (e.g., the HeartMate 3 LVAD blood pump and HeartMate 3 System Controller) were and are not staple articles or commodities of commerce suitable for substantial noninfringing uses as each of these components are especially designed to interact with one another. Further, these components constituted/constitute a material part of the inventions claimed in the '356 patent. Abbott learned about the '356 patent or was willfully blind to the existence of the patent as set forth above. Abbott also had knowledge that Abbott's '356 Accused Methods infringe the '356 patent and obtained this knowledge prior to suit. Abbott, therefore, supplied/supplies these components with knowledge of the '356 patent and knowledge that the components were especially made for use in an infringing manner. To the extent that Abbott did not have actual knowledge of its infringement, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts. Abbott, therefore, had knowledge that performing the '356 Accused Methods to implant the HeartMate 3 LVAD blood pump and connect it with the corresponding HeartMate 3 System Controller infringes the '356 patent or Abbott was otherwise willfully blind to that fact.

41. Abbott's actions demonstrate an intent not only to have caused the above acts that form the basis of direct infringement by third parties, but also that they caused these acts with the specific intent to infringe the '356 patent. At a minimum, Abbott's conduct demonstrates that Abbott either knew or should have known that the acts of such third parties directly infringed/infringe the '357 patent.

42. Abbott's infringement of the '356 patent has been willful and merits increased damages.

43. On information and belief, Abbott has been aware of the inventions described and claimed in the '356 patent since at least shortly after the '356 patent issued in June 2022, or was willfully blind to the existence of the patent. Also, on information and belief, Abbott had knowledge of the '356 patent in the December 2022-January 2023 time frame, as set forth above. In addition, Abbott has knowledge of the '356 patent upon the filing and service of this Complaint.

44. On information and belief, Abbott has known that its activities concerning the '356 Accused Methods infringed one or more claims of the '356 patent at least since June 2022, as detailed above. In addition, Abbott has such knowledge upon the filing and service of this Complaint and the attached claim charts. To the extent that Abbott did not have actual knowledge of its infringement prior to filing and service of this Complaint and claim charts, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts.

45. On information and belief, since at least June 2022, Abbott has not taken any affirmative steps to avoid infringing the '356 patent.

46. On information and belief, Abbott has made no attempt to design around the claims of the '356 patent.

47. On information and belief, Abbott did not have a reasonable basis for believing that the claims of the '356 patent were invalid.

48. On information and belief, Abbott has performed the '356 Accused Methods throughout the United States including in this District.

49. Miracor has been damaged as the result of Abbott's willful infringement. Upon information and belief, Abbott will continue to infringe one or more claims of the '356 patent

unless and until it is enjoined by this Court. Abbott has caused and will continue to cause Miracor irreparable injury and damage by infringing one or more claims of the '356 patent. Miracor will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until Abbott is enjoined from infringing the claims of the '356 patent.

## COUNT II

### **(Patent Infringement of U.S. Patent No. 11,351,357)**

50. Plaintiff restates and realleges the preceding paragraphs of this Complaint.

51. Abbott has directly infringed, and continues to directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '357 patent by making, using, selling, offering for sale and/or importing into the United States Abbott's '357 Accused Products pursuant to 35 U.S.C. § 271(a). Abbott's '357 Accused Products include Abbott's HeartMate 3 products and any other Abbott products, either alone or in combination, that operate in a reasonably similar manner.

52. The claim chart attached hereto as Exhibit 9 describes how the elements of exemplary claim 1 of the '357 patent are practiced by Abbott's '357 Accused Products.

53. Abbott also indirectly infringes the '357 patent by actively inducing direct infringement by third parties such as doctors and other medical institutions under 35 U.S.C. § 271(b). For example, on information and belief, Abbott has encouraged, aided, or otherwise caused these third parties to import, sell, offer for sale, and/or use the '357 Accused Products (which are acts of direct infringement of the '357 patent), as detailed below.

54. Abbott has knowledge that these third-party activities concerning Abbott's '357 Accused Products infringe at least claim 1 of the '357 patent. For example, Abbott has had knowledge of the '357 patent at least since shortly after it issued in June 2022 or was willfully

blind to the existence of the patent. Also, Abbott had knowledge of the '357 patent in the December 2022-January 2023 time frame, when Miracor informed Abbott that it owned several issued U.S. patents relevant to Abbott's LVAD/LVAS devices, as set forth above. Also, Abbott has had knowledge that Abbott's '357 Accused Products infringe the '357 patent and obtained this knowledge prior to suit. In addition, Abbott obtained this knowledge no later than upon the filing and service of this Complaint as demonstrated by the attached claim chart. To the extent that Abbott did not have actual knowledge of its infringement prior to filing and service of the Complaint and claim charts, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts. Abbott, therefore, had knowledge that its customers' use of Abbott's '357 Accused Products infringes the '357 patent or Abbott was otherwise willfully blind to that fact.

55. Abbott has and will continue to encourage, aid, or otherwise cause these third parties to import, sell, offer for sale, and/or use the '357 Accused Products (which are acts of direct infringement of the '357 patent) and Abbott has and will continue to encourage those acts with the specific intent to infringe one or more claims of the '357 patent. Further, Abbott provides information and technical support to its customers (such as doctors and other medical institutions), including product manuals, brochures, videos, demonstrations, and website materials encouraging its customers to purchase and instructing them to use Abbott's '357 Accused Products with knowledge that usage in accordance with their instructions constitutes an act of direct infringement of the '357 patent, or with willful blindness to that fact. Alternatively, Abbott knows and/or will know that there is a high probability that the importation, sale, offer for sale, and use of the '357 Accused Products constitutes direct infringement of the '357 patent but took deliberate actions to avoid learning of these facts.

56. On information and belief, Abbott, for example, encourages doctors and other medical institutions to purchase Abbott's '357 Accused Products and to use them to assist the performance of a heart. The use of the '357 Accused Products in the United States constitutes an act of direct infringement under 35 U.S.C. § 271(a). On its website, Abbott encourages doctors to implement its '357 Accused Products—doctors in the United States perform surgeries using the accused Abbott products and thus are direct infringers of the '357 patent. *See, e.g.*, <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>.

57. Abbott provides information and technical support to its customers (such as doctors and other medical institutions), including product manuals, videos, and website materials encouraging its customers to purchase and instructing them to use Abbott's '357 Accused Products. This information and support is found, for example, on Abbott's website. *See, e.g.*, <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>; <https://www.cardiovascular.abbott/us/en/hcp/manuals-and-technical-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/education-training.html>; <https://manuals.sjm.com/Search-Form?re=North-America&cc=US&ln=EN&ct=professional&qry=heartmate&ipp=10>; [https://youtu.be/\\_C-K-DCINbI](https://youtu.be/_C-K-DCINbI); *see also* Exhibit 8; HeartMate 3 Instructions for Use, available for download at <https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf>.



58. Abbott's individual product pages provide direction on the use of Abbott products, including photographs and videos. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>; <https://www.cardiovascular.abbott/us/en/hcp/manuals-and-technical-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/education-training.html>; *see also* Exhibit 8.

59. Abbott products are described in catalogs and manuals directed towards healthcare professionals. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; Abbott Heart Failure Product Catalog, available for download at <https://www.cardiovascular.abbott/content/dam/cv/cardiovascular/hcp/documents/us-hf-product-cat.pdf>; HeartMate 3 Instructions for Use, available for download at <https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf>. On information and belief, Abbott products are also described in journals directed toward healthcare professionals, including without limitation, *The New England Journal of Medicine*, *The American Society for Artificial Internal Organs*, and *Artificial Organs*.

60. Abbott has also indirectly infringed and continues to indirectly infringe the '357 patent under 35 U.S.C. § 271(c) because it has contributed to direct infringement, and continues to contribute to direct infringement, by third parties (such as doctors and other medical institutions), of at least claim 1 of the '357 patent. For example, on information and belief, Abbott has sold, offered for sale, and/or imported into the United States and is currently selling, offering

for sale, and/or importing into the United States various components of the '357 Accused Products (including the HeartMate 3 LVAD blood pump and HeartMate 3 System Controller) to these third parties. These third parties arrange the blood pump device and system controller of the '357 Accused Products according to instructions, documentation, tutorials, marketing materials and the like that instructed/instruct them how to arrange these components in ways that infringed/infringe the '357 patent. Abbott's components (e.g., the HeartMate 3 LVAD blood pump and HeartMate 3 System Controller) were and are not staple articles or commodities of commerce suitable for substantial noninfringing uses as each of these components are especially designed to interact with one another. Further, these components constituted/constitute a material part of the inventions claimed in the '357 patent. Abbott learned about the '357 patent or was willfully blind to the existence of the patent as set forth above. Abbott also had knowledge that Abbott's '357 Accused Products infringe the '357 patent and obtained this knowledge prior to suit. Abbott, therefore, supplied/supplies these components with knowledge of the '357 patent and knowledge that the components were especially made for use in an infringing manner. To the extent that Abbott did not have actual knowledge of its infringement, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts. Abbott, therefore, had knowledge that the use of the HeartMate 3 LVAD blood pump with the corresponding HeartMate 3 System Controller of Abbott's '357 Accused Products infringes the '357 patent or Abbott was otherwise willfully blind to that fact.

61. Abbott's actions demonstrate an intent not only to have caused the above acts that form the basis of direct infringement by third parties, but also that they caused these acts with the specific intent to infringe the '357 patent. At a minimum, Abbott's conduct demonstrates that

Abbott either knew or should have known that the acts of such third parties directly infringed/infringe the '357 patent.

62. Abbott's infringement of the '357 patent has been willful and merits increased damages.

63. On information and belief, Abbott has been aware of the inventions described and claimed in the '357 patent since at least shortly after the '357 patent issued in June 2022, or was willfully blind to the existence of the patent. Also, on information and belief, Abbott had knowledge of the '357 patent in the December 2022-January 2023 time frame, when Miracor informed Abbott that it owned several issued U.S. patents relevant to Abbott's LVAD/LVAS devices, as set forth above. In addition, Abbott has knowledge of the '357 patent upon the filing and service of this Complaint.

64. On information and belief, Abbott has known that its activities concerning the '357 Accused Products infringed one or more claims of the '357 patent at least since June 2022, as detailed above. In addition, Abbott has such knowledge upon the filing and service of this Complaint and the attached claim charts. To the extent that Abbott did not have actual knowledge of its infringement prior to filing and service of this Complaint and claim charts, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts.

65. On information and belief, since at least June 2022, Abbott has not taken any affirmative steps to avoid infringing the '357 patent.

66. On information and belief, Abbott has made no attempt to design around the claims of the '357 patent.

67. On information and belief, Abbott did not have a reasonable basis for believing that the claims of the '357 patent were invalid.

68. On information and belief, Abbott's '357 Accused Products are available to businesses and individuals throughout the United States including in this District.

69. Miracor has been damaged as the result of Abbott's willful infringement. Upon information and belief, Abbott will continue to infringe one or more claims of the '357 patent unless and until they are enjoined by this Court.

70. Abbott has caused and will continue to cause Miracor irreparable injury and damage by infringing one or more claims of the '357 patent. Miracor will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until Abbott is enjoined from infringing the claims of the '357 patent.

### **COUNT III**

#### **(Patent Infringement of United States Patent No. 11,376,415)**

71. Plaintiff restates and realleges the preceding paragraphs of this Complaint.

72. Abbott has directly infringed, and continues to directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '415 patent by making, using, testing, selling, offering for sale and/or importing into the United States Abbott's '415 Accused Products pursuant to 35 U.S.C. § 271(a). Abbott's '415 Accused Products include Abbott's HeartMate 3 products and any other Abbott products, either alone or in combination, that operate in a reasonably similar manner.

73. The claim chart attached hereto as Exhibit 10 describes how the elements of exemplary claim 1 of the '415 patent are practiced by Abbott's '415 Accused Products.

74. Abbott also indirectly infringes the '415 patent by actively inducing direct infringement by third parties such as doctors and other medical institutions under 35 U.S.C. § 271(b). For example, Abbott has encouraged, aided, or otherwise caused these third parties to

import, sell, offer for sale, and/or use the '415 Accused Products (which are acts of direct infringement of the '415 patent), as detailed below.

75. Abbott has knowledge that these third-party activities concerning Abbott's '415 Accused Products infringe at least claim 1 of the '415 patent. For example, Abbott has had knowledge of the '415 patent at least since shortly after it issued in July 2022 or was willfully blind to the existence of the patent. Also, Abbott had knowledge of the '415 patent in the December 2022-January 2023 time frame, when Miracor informed Abbott that it owned several issued U.S. patents relevant to Abbott's LVAD/LVAS devices, as set forth above. Also, Abbott has had knowledge that Abbott's '415 Accused Products infringe the '415 patent and obtained this knowledge prior to suit. In addition, Abbott obtained this knowledge no later than upon the filing and service of this Complaint as demonstrated by the attached claim chart. To the extent that Abbott did not have actual knowledge of its infringement prior to filing and service of the Complaint and claim charts, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts. Abbott, therefore, had knowledge that its customers' use of Abbott's '415 Accused Products infringes the '415 patent or Abbott was otherwise willfully blind to that fact.

76. Abbott has and will continue to encourage, aid, or otherwise cause these third parties to import, sell, offer for sale, and/or use the '415 Accused Products (which are acts of direct infringement of the '415 patent) and Abbott has and will continue to encourage those acts with the specific intent to infringe one or more claims of the '415 patent. Further, Abbott provides information and technical support to its customers (such as doctors and other medical institutions), including product manuals, brochures, videos, demonstrations, and website materials encouraging its customers to purchase and instructing them to use Abbott's '415 Accused Products with

knowledge that usage in accordance with their instructions constitutes an act of direct infringement of the '415 patent, or with willful blindness to that fact. Alternatively, Abbott knows and/or will know that there is a high probability that the importation, sale, offer for sale, and use of the '415 Accused Products constitutes direct infringement of the '415 patent but took deliberate actions to avoid learning of these facts.

77. On information and belief, Abbott, for example, encourages doctors and other medical institutions to purchase Abbott's '415 Accused Products and to use them to assist the performance of a heart. The use of the '415 Accused Products in the United States constitutes an act of direct infringement under 35 U.S.C. § 271(a). On its website, Abbott encourages doctors to implement its '415 Accused Products—doctors in the United States perform surgeries using the accused Abbott products and thus are direct infringers of the '415 patent. *See, e.g.*, <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>.

78. Abbott provides information and technical support to its customers (such as doctors and other medical institutions), including product manuals, videos, and website materials encouraging its customers to purchase and instructing them to use Abbott's '415 Accused Products. This information and support is found, for example, on Abbott's website. *See, e.g.*, <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>; <https://www.cardiovascular.abbott/us/en/hcp/manuals-and-technical-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/education-training.html>; <https://manuals.sjm.com/Search-Form?re=North->

[America&cc=US&ln=EN&ct=professional&qry=heartmate&ipp=10;](#) [https://youtu.be/\\_C-K-DCINbI](https://youtu.be/_C-K-DCINbI); *see also* Exhibit 8; HeartMate 3 Instructions for Use, available for download at <https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf>.

79. Abbott's individual product pages provide direction on the use of Abbott products, including photographs and videos. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>; <https://www.cardiovascular.abbott/us/en/hcp/manuals-and-technical-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/education-training.html>; *see also* Exhibit 8.

80. Abbott products are described in catalogs and manuals directed towards healthcare professionals. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; Abbott Heart Failure Product Catalog, available for download at <https://www.cardiovascular.abbott/content/dam/cv/cardiovascular/hcp/documents/us-hf-product-cat.pdf>; HeartMate 3 Instructions for Use, available for download at <https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf>. On information and belief, Abbott products are also described in journals directed toward healthcare professionals, including without limitation, *The New England Journal of Medicine*, *The American Society for Artificial Internal Organs*, and *Artificial Organs*.

81. Abbott has also indirectly infringed and continues to indirectly infringe the '415 patent under 35 U.S.C. § 271(c) because it has contributed to direct infringement, and continues to contribute to direct infringement, by third parties (such as doctors and other medical institutions), of at least claim 1 of the '415 patent. For example, on information and belief, Abbott has sold, offered for sale, and/or imported into the United States and is currently selling, offering for sale, and/or importing into the United States various components of the '415 Accused Products (including the HeartMate 3 LVAD blood pump and HeartMate 3 System Controller) to these third parties. These third parties arrange the blood pump device and system controller of the '415 Accused Products according to instructions, documentation, tutorials, marketing materials and the like that instructed/instruct them how to arrange these components in ways that infringed/infringe the '415 patent. Abbott's components (e.g., the HeartMate 3 LVAD blood pump and HeartMate 3 System Controller) were and are not staple articles or commodities of commerce suitable for substantial noninfringing uses as each of these components are especially designed to interact with one another. Further, these components constituted/constitute a material part of the inventions claimed in the '415 patent. Abbott learned about the '415 patent or was willfully blind to the existence of the patent as set forth above. Abbott also had knowledge that Abbott's '415 Accused Products infringe the '415 patent and obtained this knowledge prior to suit. Abbott, therefore, supplied/supplies these components with knowledge of the '415 patent and knowledge that the components were especially made for use in an infringing manner. To the extent that Abbott did not have actual knowledge of its infringement, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts. Abbott, therefore, had knowledge that the use of the HeartMate 3 LVAD blood pump with the corresponding HeartMate 3 System Controller of



Abbott's '415 Accused Products infringes the '415 patent or Abbott was otherwise willfully blind to that fact.

82. Abbott's actions demonstrate an intent not only to have caused the above acts that form the basis of direct infringement by third parties, but also that they caused these acts with the specific intent to infringe the '415 patent. At a minimum, Abbott's conduct demonstrates that Abbott either knew or should have known that the acts of such third parties directly infringed/infringe the '415 patent.

83. Abbott's infringement of the '415 patent has been willful and merits increased damages.

84. On information and belief, Abbott has been aware of the inventions described and claimed in the '415 patent since at least shortly after the '415 patent issued in July 2022, or was willfully blind to the existence of the patent. Also, on information and belief, Abbott had knowledge of the '415 patent in the December 2022-January 2023 time frame, when Miracor informed Abbott that it owned issued U.S. patents relevant to Abbott's LVAD/LVAS devices, as set forth above. In addition, Abbott has knowledge of the '415 patent upon the filing and service of this Complaint.

85. On information and belief, Abbott has known that its activities concerning the '415 Accused Products infringed one or more claims of the '415 patent at least since July 2022, as detailed above. In addition, Abbott has such knowledge upon the filing and service of this Complaint and the attached claim charts. To the extent that Abbott did not have actual knowledge of its infringement prior to filing and service of this Complaint and claim charts, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts.

86. On information and belief, since at least July 2022, Abbott has not taken any affirmative steps to avoid infringing the '415 patent.

87. On information and belief, Abbott has made no attempt to design around the claims of the '415 patent.

88. On information and belief, Abbott did not have a reasonable basis for believing that the claims of the '415 patent were invalid.

89. On information and belief, Abbott's '415 Accused Products are available to businesses and individuals throughout the United States including in this District.

90. Miracor has been damaged as the result of Abbott's willful infringement. Upon information and belief, Abbott will continue to infringe one or more claims of the '415 patent unless and until they are enjoined by this Court.

91. Abbott has caused and will continue to cause Miracor irreparable injury and damage by infringing one or more claims of the '415 patent. Miracor will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until Abbott is enjoined from infringing the claims of the '415 patent.

#### **COUNT IV**

##### **(Patent Infringement of United States Patent No. 11,572,879)**

92. Plaintiff restates and realleges the preceding paragraphs of this Complaint.

93. Abbott has directly infringed, and continues to directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '879 patent by making, using, testing, selling, offering for sale and/or importing into the United States Abbott's '879 Accused Products pursuant to 35 U.S.C. § 271(a). Abbott's '879 Accused Products include Abbott's HeartMate 3

products and any other Abbott products, either alone or in combination, that operate in a reasonably similar manner.

94. The claim chart attached hereto as Exhibit 11 describes how the elements of exemplary claim 1 of the '879 patent are practiced by Abbott's '879 Accused Products.

95. Abbott also indirectly infringes the '879 patent by actively inducing direct infringement by third parties such as doctors and other medical institutions under 35 U.S.C. § 271(b). For example, Abbott has encouraged, aided, or otherwise caused these third parties to import, sell, offer for sale, and/or use the '879 Accused Products (which are acts of direct infringement of the '879 patent), as detailed below.

96. Abbott has knowledge that these third-party activities concerning Abbott's '879 Accused Products infringe at least claim 1 of the '879 patent. For example, Abbott has had knowledge of the '879 patent at least since shortly after the patent issued in February 2023 or was willfully blind to the existence of the patent. In the December 2022-January 2023 time frame, Miracor had informed Abbott that it owned U.S. patents and other IP relevant to Abbott's LVAD/LVAS devices, as set forth above. Also, Abbott has had knowledge that Abbott's '879 Accused Products infringe the '879 patent and obtained this knowledge prior to this suit. In addition, Abbott obtained this knowledge no later than upon the filing and service of this Complaint as demonstrated by the attached claim chart. To the extent that Abbott did not have actual knowledge of its infringement prior to filing and service of the Complaint and claim charts, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts. Abbott, therefore, had knowledge that its customers' use of Abbott's '879 Accused Products infringes the '879 patent or Abbott was otherwise willfully blind to that fact.

97. Abbott has and will continue to encourage, aid, or otherwise cause these third parties to import, sell, offer for sale, and/or use the '879 Accused Products (which are acts of direct infringement of the '879 patent) and Abbott has and will continue to encourage those acts with the specific intent to infringe one or more claims of the '879 patent. Further, Abbott provides information and technical support to its customers (such as doctors and other medical institutions), including product manuals, brochures, videos, demonstrations, and website materials encouraging its customers to purchase and instructing them to use Abbott's '879 Accused Products with knowledge that usage in accordance with their instructions constitutes an act of direct infringement of the '879 patent, or with willful blindness to that fact. Alternatively, Abbott knows and/or will know that there is a high probability that the importation, sale, offer for sale, and use of the '879 Accused Products constitutes direct infringement of the '879 patent but took deliberate actions to avoid learning of these facts.

98. On information and belief, Abbott, for example, encourages doctors and other medical institutions to purchase Abbott's '879 Accused Products and to use them to assist the performance of a heart. The use of the '879 Accused Products in the United States constitutes an act of direct infringement under 35 U.S.C. § 271(a). On its website, Abbott encourages doctors to implement its '879 Accused Products—doctors in the United States perform surgeries using the accused Abbott products and thus are direct infringers of the '879 patent. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>.

99. Abbott provides information and technical support to its customers (such as doctors and other medical institutions), including product manuals, videos, and website materials encouraging its customers to purchase and instructing them to use Abbott's '879 Accused

Products. This information and support is found, for example, on Abbott's website. *See, e.g.*, <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>; <https://www.cardiovascular.abbott/us/en/hcp/manuals-and-technical-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/education-training.html>; <https://manuals.sjm.com/Search-Form?re=North-America&cc=US&ln=EN&ct=professional&qry=heartmate&ipp=10>; [https://youtu.be/\\_C-K-DCINbI](https://youtu.be/_C-K-DCINbI); *see also* Exhibit 8; HeartMate 3 Instructions for Use, available for download at <https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf>.

100. Abbott's individual product pages provide direction on the use of Abbott products, including photographs and videos. *See, e.g.*, <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>; <https://www.cardiovascular.abbott/us/en/hcp/manuals-and-technical-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/education-training.html>; *see also* Exhibit 8.

101. Abbott products are described in catalogs and manuals directed towards healthcare professionals. *See, e.g.*, <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; Abbott Heart Failure Product Catalog, available for download at

<https://www.cardiovascular.abbott/content/dam/cv/cardiovascular/hcp/documents/us-hf-product-cat.pdf>; HeartMate 3 Instructions for Use, available at <https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf>. On information and belief, Abbott products are also described in journals directed toward healthcare professionals, including without limitation, *The New England Journal of Medicine*, *The American Society for Artificial Internal Organs*, and *Artificial Organs*.

102. Abbott has also indirectly infringed and continues to indirectly infringe the '879 patent under 35 U.S.C. § 271(c) because it has contributed to direct infringement, and continues to contribute to direct infringement, by third parties (such as doctors and other medical institutions), of at least claim 1 of the '879 patent. For example, on information and belief, Abbott has sold, offered for sale, and/or imported into the United States and is currently selling, offering for sale, and/or importing into the United States various components of the '879 Accused Products (including the HeartMate 3 LVAD blood pump and HeartMate 3 System Controller) to these third parties. These third parties arrange the blood pump device and system controller of the '879 Accused Products according to instructions, documentation, tutorials, marketing materials and the like that instructed/instruct them how to arrange these components in ways that infringed/infringe the '879 patent. Abbott's components (e.g., the HeartMate 3 LVAD blood pump and HeartMate 3 System Controller) were and are not staple articles or commodities of commerce suitable for substantial noninfringing uses as each of these components are especially designed to interact with one another. Further, these components constituted/constitute a material part of the inventions claimed in the '879 patent. Abbott learned about the '879 patent or was willfully blind to the existence of the patent as set forth above. Abbott also had knowledge that Abbott's '879 Accused Products infringe the '879 patent and obtained this knowledge prior to suit. Abbott, therefore,

supplied/supplies these components with knowledge of the '879 patent and knowledge that the components were especially made for use in an infringing manner. To the extent that Abbott did not have actual knowledge of its infringement, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts. Abbott, therefore, had knowledge that the use of the HeartMate 3 LVAD blood pump with the corresponding HeartMate 3 System Controller of Abbott's '879 Accused Products infringes the '879 patent or Abbott was otherwise willfully blind to that fact.

103. Abbott's actions demonstrate an intent not only to have caused the above acts that form the basis of direct infringement by third parties, but also that they caused these acts with the specific intent to infringe the '879 patent. At a minimum, Abbott's conduct demonstrates that Abbott either knew or should have known that the acts of such third parties directly infringed/infringe the '879 patent.

104. Abbott's infringement of the '879 patent has been willful and merits increased damages.

105. On information and belief, Abbott has been aware of the inventions described and claimed in the '879 patent since at least February 2023, or was willfully blind to the existence of the patent. For example, on information and belief, Abbott learned of the '879 patent shortly after it issued in February 2023. Also, in the December 2022-January 2023 time frame, Miracor had informed Abbott that it owned U.S. patents and other IP relevant to Abbott's LVAD/LVAS devices, as set forth above. In addition, Abbott has knowledge of the '879 patent upon the filing and service of this Complaint.

106. On information and belief, Abbott has known that its activities concerning the '879 Accused Products infringed one or more claims of the '879 patent at least since February 2023, as

detailed above. In addition, Abbott has such knowledge upon the filing and service of this Complaint and the attached claim charts. To the extent that Abbott did not have actual knowledge of its infringement prior to filing and service of this Complaint and claim charts, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts.

107. On information and belief, since at least February 2023, Abbott has not taken any affirmative steps to avoid infringing the '879 patent.

108. On information and belief, Abbott has made no attempt to design around the claims of the '879 patent.

109. On information and belief, Abbott did not have a reasonable basis for believing that the claims of the '879 patent were invalid.

110. On information and belief, Abbott's '879 Accused Products are available to businesses and individuals throughout the United States including in this District.

111. Miracor has been damaged as the result of Abbott's willful infringement. Upon information and belief, Abbott will continue to infringe one or more claims of the '879 patent unless and until they are enjoined by this Court.

112. Abbott has caused and will continue to cause Miracor irreparable injury and damage by infringing one or more claims of the '879 patent. Miracor will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until Abbott is enjoined from infringing the claims of the '879 patent.



**COUNT V**

**(Patent Infringement of United States Patent No. 11,674,517)**

113. Plaintiff restates and realleges the preceding paragraphs of this Complaint.

114. Abbott has directly infringed, and continues to directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '517 patent by making, using, testing, selling, offering for sale and/or importing into the United States Abbott's '517 Accused Products pursuant to 35 U.S.C. § 271(a). Abbott's '517 Accused Products include Abbott's HeartMate 3 products and any other Abbott products, either alone or in combination, that operate in a reasonably similar manner.

115. The claim chart attached hereto as Exhibit 12 describes how the elements of exemplary claim 1 of the '517 patent are practiced by Abbott's '517 Accused Products.

116. Abbott also indirectly infringes the '517 patent by actively inducing direct infringement by third parties such as doctors and other medical institutions under 35 U.S.C. § 271(b). For example, Abbott has encouraged, aided, or otherwise caused these third parties to import, sell, offer for sale, and/or use the '517 Accused Products (which are acts of direct infringement of the '517 patent), as detailed below.

117. Abbott has knowledge that these third-party activities concerning Abbott's '517 Accused Products infringe at least claim 1 of the '517 patent. For example, Abbott has had knowledge of the '517 patent at least since shortly after the patent issued in June 2023 or was willfully blind to the existence of the patent. In the December 2022-January 2023 time frame, Miracor had informed Abbott that it owned U.S. patents and other IP relevant to Abbott's LVAD/LVAS devices, as set forth above. Also, Abbott has had knowledge that Abbott's '517 Accused Products infringe the '517 patent and obtained this knowledge prior to this suit. In

addition, Abbott obtained this knowledge no later than upon the filing and service of this Complaint as demonstrated by the attached claim chart. To the extent that Abbott did not have actual knowledge of its infringement prior to filing and service of the Complaint and claim charts, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts. Abbott, therefore, had knowledge that its customers' use of Abbott's '517 Accused Products infringes the '517 patent or Abbott was otherwise willfully blind to that fact.

118. Abbott has and will continue to encourage, aid, or otherwise cause these third parties to import, sell, offer for sale, and/or use the '517 Accused Products (which are acts of direct infringement of the '517 patent) and Abbott has and will continue to encourage those acts with the specific intent to infringe one or more claims of the '517 patent. Further, Abbott provides information and technical support to its customers (such as doctors and other medical institutions), including product manuals, brochures, videos, demonstrations, and website materials encouraging its customers to purchase and instructing them to use Abbott's '517 Accused Products with knowledge that usage in accordance with their instructions constitutes an act of direct infringement of the '517 patent, or with willful blindness to that fact. Alternatively, Abbott knows and/or will know that there is a high probability that the importation, sale, offer for sale, and use of the '517 Accused Products constitutes direct infringement of the '517 patent but took deliberate actions to avoid learning of these facts.

119. On information and belief, Abbott, for example, encourages doctors and other medical institutions to purchase Abbott's '517 Accused Products and to use them to assist the performance of a heart. The use of the '517 Accused Products in the United States constitutes an act of direct infringement under 35 U.S.C. § 271(a). On its website, Abbott encourages doctors to implement its '517 Accused Products—doctors in the United States perform surgeries using the

accused Abbott products and thus are direct infringers of the '517 patent. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>.

120. Abbott provides information and technical support to its customers (such as doctors and other medical institutions), including product manuals, videos, and website materials encouraging its customers to purchase and instructing them to use Abbott's '517 Accused Products. This information and support is found, for example, on Abbott's website. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>; <https://www.cardiovascular.abbott/us/en/hcp/manuals-and-technical-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/education-training.html>; <https://manuals.sjm.com/Search-Form?re=North-America&cc=US&ln=EN&ct=professional&qry=heartmate&ipp=10>; [https://youtu.be/\\_C-K-DCINbI](https://youtu.be/_C-K-DCINbI); *see also* Exhibit 8; HeartMate 3 Instructions for Use, available for download at <https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf>.

121. Abbott's individual product pages provide direction on the use of Abbott products, including photographs and videos. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>; <https://www.cardiovascular.abbott/us/en/hcp/manuals-and-technical-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>;

<https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/education-training.html>; *see also* Exhibit 8.

122. Abbott products are described in catalogs and manuals directed towards healthcare professionals. *See, e.g.*, <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; Abbott Heart Failure Product Catalog, available for download at <https://www.cardiovascular.abbott/content/dam/cv/cardiovascular/hcp/documents/us-hf-product-cat.pdf>; HeartMate 3 Instructions for Use, available for download at <https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf>. On information and belief, Abbott products are also described in journals directed toward healthcare professionals, including without limitation, *The New England Journal of Medicine*, *The American Society for Artificial Internal Organs*, and *Artificial Organs*.

123. Abbott has also indirectly infringed and continues to indirectly infringe the '517 patent under 35 U.S.C. § 271(c) because it has contributed to direct infringement, and continues to contribute to direct infringement, by third parties (such as doctors and other medical institutions), of at least claim 1 of the '517 patent. For example, on information and belief, Abbott has sold, offered for sale, and/or imported into the United States and is currently selling, offering for sale, and/or importing into the United States various components of the '517 Accused Products (including the HeartMate 3 LVAD blood pump and HeartMate 3 System Controller) to these third parties. These third parties arrange the blood pump device and system controller of the '517 Accused Products according to instructions, documentation, tutorials, marketing materials and the like that instructed/instruct them how to arrange these components in ways that infringed/infringe the '517 patent. Abbott's components (e.g., the HeartMate 3 LVAD blood pump and HeartMate

3 System Controller) were and are not staple articles or commodities of commerce suitable for substantial noninfringing uses as each of these components are especially designed to interact with one another. Further, these components constituted/constitute a material part of the inventions claimed in the '517 patent. Abbott learned about the '517 patent or was willfully blind to the existence of the patent as set forth above. Abbott also had knowledge that Abbott's '517 Accused Products infringe the '517 patent and obtained this knowledge prior to suit. Abbott, therefore, supplied/supplies these components with knowledge of the '517 patent and knowledge that the components were especially made for use in an infringing manner. To the extent that Abbott did not have actual knowledge of its infringement, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts. Abbott, therefore, had knowledge that the use of the HeartMate 3 LVAD blood pump with the corresponding HeartMate 3 System Controller of Abbott's '517 Accused Products infringes the '517 patent or Abbott was otherwise willfully blind to that fact.

124. Abbott's actions demonstrate an intent not only to have caused the above acts that form the basis of direct infringement by third parties, but also that they caused these acts with the specific intent to infringe the '517 patent. At a minimum, Abbott's conduct demonstrates that Abbott either knew or should have known that the acts of such third parties directly infringed/infringe the '517 patent.

125. Abbott's infringement of the '517 patent has been willful and merits increased damages.

126. On information and belief, Abbott has been aware of the inventions described and claimed in the '517 patent since at least June 2023, or was willfully blind to the existence of the patent. For example, on information and belief, Abbott learned of the '517 patent shortly after it

issued in June 2023. Also, in the December 2022-January 2023 time frame, Miracor had informed Abbott that it owned U.S. patents and other IP relevant to Abbott's LVAD/LVAS devices, as set forth above. In addition, Abbott has knowledge of the '517 patent upon the filing and service of this Complaint.

127. On information and belief, Abbott has known that its activities concerning the '517 Accused Products infringed one or more claims of the '517 patent at least since June 2023, as detailed above. In addition, Abbott has such knowledge upon the filing and service of this Complaint and the attached claim charts. To the extent that Abbott did not have actual knowledge of its infringement prior to filing and service of this Complaint and claim charts, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts.

128. On information and belief, since at least June 2023, Abbott has not taken any affirmative steps to avoid infringing the '517 patent.

129. On information and belief, Abbott has made no attempt to design around the claims of the '517 patent.

130. On information and belief, Abbott did not have a reasonable basis for believing that the claims of the '517 patent were invalid.

131. On information and belief, Abbott's '517 Accused Products are available to businesses and individuals throughout the United States including in this District.

132. Miracor has been damaged as the result of Abbott's willful infringement. Upon information and belief, Abbott will continue to infringe one or more claims of the '517 patent unless and until they are enjoined by this Court.

133. Abbott has caused and will continue to cause Miracor irreparable injury and damage by infringing one or more claims of the '517 patent. Miracor will suffer further irreparable

injury, for which it has no adequate remedy at law, unless and until Abbott is enjoined from infringing the claims of the '517 patent.

**COUNT VI**

**(Patent Infringement of United States Patent No. 11,754,077)**

134. Plaintiff restates and realleges the preceding paragraphs of this Complaint.

135. Abbott has directly infringed, and continues to directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '077 patent by making, using, testing, selling, offering for sale and/or importing into the United States Abbott's '077 Accused Products pursuant to 35 U.S.C. § 271(a). Abbott's '077 Accused Products include Abbott's HeartMate 3 products and any other Abbott products, either alone or in combination, that operate in a reasonably similar manner.

136. The claim chart attached hereto as Exhibit 13 describes how the elements of exemplary claim 1 of the '077 patent are practiced by Abbott's '077 Accused Products.

137. Abbott also indirectly infringes the '077 patent by actively inducing direct infringement by third parties such as doctors and other medical institutions under 35 U.S.C. § 271(b). For example, Abbott has encouraged, aided, or otherwise caused these third parties to import, sell, offer for sale, and/or use the '077 Accused Products (which are acts of direct infringement of the '077 patent), as detailed below.

138. Abbott has knowledge that these third-party activities concerning Abbott's '077 Accused Products infringe at least claim 1 of the '077 patent. For example, Abbott has had knowledge of the '077 patent at least since shortly after the patent issued in September 2023 or was willfully blind to the existence of the patent. In the December 2022-January 2023 time frame, Miracor had informed Abbott that it owned U.S. patents and other IP relevant to Abbott's

LVAD/LVAS devices, as set forth above. Also, Abbott has had knowledge that Abbott's '077 Accused Products infringe the '077 patent and obtained this knowledge prior to this suit. In addition, Abbott obtained this knowledge no later than upon the filing and service of this Complaint as demonstrated by the attached claim chart. To the extent that Abbott did not have actual knowledge of its infringement prior to filing and service of the Complaint and claim charts, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts. Abbott, therefore, had knowledge that its customers' use of Abbott's '077 Accused Products infringes the '077 patent or Abbott was otherwise willfully blind to that fact.

139. Abbott has and will continue to encourage, aid, or otherwise cause these third parties to import, sell, offer for sale, and/or use the '077 Accused Products (which are acts of direct infringement of the '077 patent) and Abbott has and will continue to encourage those acts with the specific intent to infringe one or more claims of the '077 patent. Further, Abbott provides information and technical support to its customers (such as doctors and other medical institutions), including product manuals, brochures, videos, demonstrations, and website materials encouraging its customers to purchase and instructing them to use Abbott's '077 Accused Products with knowledge that usage in accordance with their instructions constitutes an act of direct infringement of the '077 patent, or with willful blindness to that fact. Alternatively, Abbott knows and/or will know that there is a high probability that the importation, sale, offer for sale, and use of the '077 Accused Products constitutes direct infringement of the '077 patent but took deliberate actions to avoid learning of these facts.

140. On information and belief, Abbott, for example, encourages doctors and other medical institutions to purchase Abbott's '077 Accused Products and to use them to assist the performance of a heart. The use of the '077 Accused Products in the United States constitutes an



act of direct infringement under 35 U.S.C. § 271(a). On its website, Abbott encourages doctors to implement its '077 Accused Products—doctors in the United States perform surgeries using the accused Abbott products and thus are direct infringers of the '077 patent. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>.

141. Abbott provides information and technical support to its customers (such as doctors and other medical institutions), including product manuals, videos, and website materials encouraging its customers to purchase and instructing them to use Abbott's '077 Accused Products. This information and support is found, for example, on Abbott's website. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>; <https://www.cardiovascular.abbott/us/en/hcp/manuals-and-technical-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/education-training.html>; <https://manuals.sjm.com/Search-Form?re=North-America&cc=US&ln=EN&ct=professional&qry=heartmate&ipp=10>; [https://youtu.be/\\_C-K-DCINbI](https://youtu.be/_C-K-DCINbI); *see also* Exhibit 8; HeartMate 3 Instructions for Use, available for download at <https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf>.

142. Abbott's individual product pages provide direction on the use of Abbott products, including photographs and videos. *See, e.g.,* <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html>; <https://www.cardiovascular.abbott/us/en/hcp/manuals-and-technical-resources.html>.

[technical-resources.html](#); <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>;  
<https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/education-training.html>; *see also* Exhibit 8.

143. Abbott products are described in catalogs and manuals directed towards healthcare professionals. *See, e.g.*, <https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/manuals-resources.html>; Abbott Heart Failure Product Catalog, available for download at <https://www.cardiovascular.abbott/content/dam/cv/cardiovascular/hcp/documents/us-hf-product-cat.pdf>; Heartmate 3 Instructions for Use, available for download at <https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf>. On information and belief, Abbott products are also described in journals directed toward healthcare professionals, including without limitation, *The New England Journal of Medicine*, *The American Society for Artificial Internal Organs*, and *Artificial Organs*.

144. Abbott has also indirectly infringed and continues to indirectly infringe the '077 patent under 35 U.S.C. § 271(c) because it has contributed to direct infringement, and continues to contribute to direct infringement, by third parties (such as doctors and other medical institutions), of at least claim 1 of the '077 patent. For example, on information and belief, Abbott has sold, offered for sale, and/or imported into the United States and is currently selling, offering for sale, and/or importing into the United States various components of the '077 Accused Products (including the HeartMate 3 LVAD blood pump and HeartMate 3 System Controller) to these third parties. These third parties arrange the blood pump device and system controller of the '077 Accused Products according to instructions, documentation, tutorials, marketing materials and the

like that instructed/instruct them how to arrange these components in ways that infringed/infringe the '077 patent. Abbott's components (e.g., the HeartMate 3 LVAD blood pump and HeartMate 3 System Controller) were and are not staple articles or commodities of commerce suitable for substantial noninfringing uses as each of these components are especially designed to interact with one another. Further, these components constituted/constitute a material part of the inventions claimed in the '077 patent. Abbott learned about the '077 patent or was willfully blind to the existence of the patent as set forth above. Abbott also had knowledge that Abbott's '077 Accused Products infringe the '077 patent and obtained this knowledge prior to suit. Abbott, therefore, supplied/supplies these components with knowledge of the '077 patent and knowledge that the components were especially made for use in an infringing manner. To the extent that Abbott did not have actual knowledge of its infringement, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts. Abbott, therefore, had knowledge that the use of the HeartMate 3 LVAD blood pump with the corresponding HeartMate 3 System Controller of Abbott's '077 Accused Products infringes the '077 patent or Abbott was otherwise willfully blind to that fact.

145. Abbott's actions demonstrate an intent not only to have caused the above acts that form the basis of direct infringement by third parties, but also that they caused these acts with the specific intent to infringe the '077 patent. At a minimum, Abbott's conduct demonstrates that Abbott either knew or should have known that the acts of such third parties directly infringed/infringe the '077 patent.

146. Abbott's infringement of the '077 patent has been willful and merits increased damages.

147. On information and belief, Abbott has been aware of the inventions described and claimed in the '077 patent since at least September 2023, or was willfully blind to the existence of the patent. For example, on information and belief, Abbott learned of the '077 patent shortly after it issued in September 2023. Also, in the December 2022-January 2023 time frame, Miracor had informed Abbott that it owned U.S. patents and other IP relevant to Abbott's LVAD/LVAS devices, as set forth above. In addition, Abbott has knowledge of the '077 patent upon the filing and service of this Complaint.

148. On information and belief, Abbott has known that its activities concerning the '077 Accused Products infringed one or more claims of the '077 patent at least since September 2023, as detailed above. In addition, Abbott has such knowledge upon the filing and service of this Complaint and the attached claim charts. To the extent that Abbott did not have actual knowledge of its infringement prior to filing and service of this Complaint and claim charts, Abbott's lack of actual knowledge is due to its deliberate decision to avoid learning of these facts.

149. On information and belief, since at least September 2023, Abbott has not taken any affirmative steps to avoid infringing the '077 patent.

150. On information and belief, Abbott has made no attempt to design around the claims of the '077 patent.

151. On information and belief, Abbott did not have a reasonable basis for believing that the claims of the '077 patent were invalid.

152. On information and belief, Abbott's '077 Accused Products are available to businesses and individuals throughout the United States including in this District.

153. Miracor has been damaged as the result of Abbott's willful infringement. Upon information and belief, Abbott will continue to infringe one or more claims of the '077 patent unless and until they are enjoined by this Court.

154. Abbott has caused and will continue to cause Miracor irreparable injury and damage by infringing one or more claims of the '077 patent. Miracor will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until Abbott is enjoined from infringing the claims of the '077 patent.

### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff Miracor respectfully requests that this Court:

- 1) Enter judgment that Abbott has infringed one or more claims of each of the Asserted Patents;
- 2) Enter an order permanently enjoining Abbott and its officers, agents, employees, attorneys, and all persons in active concert or participation with any of the foregoing, from infringing the claims of the Asserted Patents;
- 3) Award Miracor damages in an amount sufficient to compensate it for Abbott's infringement of one or more claims of the Asserted Patents, together with pre-judgment and post-judgment interest, costs, and all other damages permitted under 35 U.S.C. § 284;
- 4) Perform an accounting of Abbott's infringing activities through trial and judgment;
- 5) Treble the damages awarded to Miracor under 35 U.S.C. § 284 by reason of Abbott's willful infringement of the Asserted Patents;
- 6) Declare this case to be "exceptional" under 35 U.S.C. § 285 and award Miracor its attorneys' fees, expenses, and costs incurred in this action; and
- 7) Award Miracor such other and further relief as this Court deems just and proper.

**DEMAND FOR JURY TRIAL**

Plaintiff Miracor demands a jury trial on all issues so triable.

Dated this 27th day of November 2023.

Respectfully Submitted,

BARNES & THORNBURG LLP

By: s/Todd G. Vare  
Todd G. Vare (IL Bar No.: 6238287)  
todd.vare@btlaw.com  
11 South Meridian Street  
Indianapolis, IN 46204  
Tel: (317) 231-7735

OF COUNSEL:

Jason M. Zucchi (*pro hac vice application forthcoming*)  
jason.zucchi@btlaw.com  
225 South Sixth Street, Suite 2800  
Minneapolis, MN 55402  
Tel: (612) 367-8764

Ronald Cahill (*pro hac vice application forthcoming*)  
rcahill@btlaw.com  
One Marina Park Drive, Suite 1530  
Boston, MA 02210  
Tel: (617) 316-5312

Lauren Baker (*pro hac vice application forthcoming*)  
lauren.baker@btlaw.com  
3340 Peachtree Road Northeast, Suite 2900  
Atlanta, GA 30326  
Tel: (404) 264-4036

**COUNSEL FOR PLAINTIFF,  
MIRACOR MEDICAL SA**