

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION**

EBARA CORPORATION,

Plaintiff,

v.

SEMIGROUP TEXAS, LLC;
WARDE TECHNOLOGY MATERIALS, LLC;
WARDE TEC (TAIWAN) CO., LTD.

Defendants.

Civil Action No. _____

JURY TRIAL DEMANDED

COMPLAINT

Plaintiff Ebara Corporation (“Ebara” or “Plaintiff”), files this Complaint and demand for a jury trial seeking relief for patent infringement by Semigroup Texas, LLC; Warde Technology Materials, LLC; and Warde Tec (Taiwan) Co., Ltd. (collectively, “Defendants”) of U.S. Patent No. 9,573,244 (“the ‘244 Patent”), U.S. Patent No. D766,849 (“the D’849 Patent”), U.S. Patent No. D769,200 (“the D’200 Patent”), U.S. Patent No. D770,990 (“the D’990 Patent”), U.S. Patent No. D808,349 (“the D’349 Patent”), and U.S. Patent No. D813,180 (“the D’180 Patent”), (collectively, the “Asserted Patents”). Ebara states and alleges the following:

NATURE OF ACTION

1. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 et seq., specifically including 35 U.S.C. § 271.

THE PARTIES

2. Plaintiff Ebara is a corporation organized and existing under the laws of Japan, with its principal place of business at 11-1, Haneda Asahi-cho, Ota-ku, Tokyo 144-8510, Japan. Ebara is a market leader in the research, development, and manufacture of chemical mechanical polishing systems (“CMP”) for use in the semiconductor manufacturing equipment market and related fields.

3. Upon information and belief, Semigroup Texas, LLC (“Semigroup”) is a chemical mechanical polishing systems parts manufacturer organized under the laws of the State of Texas, having a regular and established place of business at 3235 Halifax Street, Dallas, Texas 75247, within this Northern District of Texas, Dallas Division.

4. Upon information and belief, Warde Technology Materials, LLC (“Warde Texas”) is, among other things, a chemical mechanical polishing systems parts manufacturer organized under the laws of the State of Texas, having a regular and established place of business at 115 Bristol Ct., Coppell, Texas 75019, within this Northern District of Texas, Dallas Division. On information and belief, Warde Texas is controlled and owned in, at least, majority part by Warde Taiwan because, at least, a filing made at the Office of the Secretary of State of Texas on March 31, 2019 lists Warde Taiwan as both its “Managing Member 1” and “Organizer” and lists Warde Taiwan’s principal place of business (No. 66, Jiaqin S Road, Zhubei City, Hsinchu County 30268, Taiwan, Republic of China).

5. Upon information and belief, Warde Tec (Taiwan) Co., Ltd. (“Warde Taiwan”) is, among other things, a chemical mechanical polishing systems parts manufacturer organized under the laws of Taiwan, Republic of China, with its principal place of business at No. 66, Jiaqin S Road, Zhubei City, Hsinchu County 30268, Taiwan, Republic of China.

JURISDICTION AND VENUE

6. This action arises under the patent laws of the United States, Title 35 U.S.C. § 1, et seq. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

7. This Court has personal jurisdiction over Defendants. On information and belief, each Defendant, directly or indirectly through intermediaries, including distributors, retailers, and others, ships, distributes, offers for sale, sells, and/or advertises products throughout the United States, including in the State of Texas and this District. Defendants have placed products into the

stream of commerce through established distribution channels that reach this District. On information and belief, infringing products have been purchased by consumers in this District. Defendants have committed acts of patent infringement within the United States, and more particularly within this District.

8. On information and belief, Warde Texas maintains a corporate office at 115 Bristol Ct., Coppel, Texas 75019, within this Northern District of Texas, Dallas Division.

9. On information and belief, Semigroup maintains a corporate office at 3235 Halifax Street, Dallas, Texas 75247, within this Northern District of Texas, Dallas Division.

10. On information and belief, Warde Taiwan supplied components, including elastic membranes and retaining rings, that were incorporated into products imported into, offered for sale, sold, and/or used in the United States, including Texas and this District. Ebara's claims arise from and relate to those activities.

11. On information and belief, Warde Taiwan's business activities include the ongoing supply of components within the United States through established distribution channels serving the United States market, through which such products are sold, offered for sale, imported, and used in the United States, including Texas and this District. Ebara's claims for patent infringement arise directly from and/or relate to those activities. Moreover, as discussed further below, certain elastic membranes and retaining ring products, including products for repair and replacement purposes, are sold, offered for sale, imported, and used in the United States, including Texas and this District, directly and/or through Warde Texas and/or Semigroup.

12. On information and belief, Warde Taiwan's business activities are not limited to isolated or sporadic transactions but instead include the ongoing supply of components for use in semiconductor manufacturing equipment used within the United States, including Texas. Warde Taiwan's products are marketed and distributed as "drop-in replacements" for industry-recognized components and are compatible with equipment used by customers in this District.

13. Among the accused devices, the W6551 Test Head, as more fully described below, is associated with Warde Taiwan. The presence of the W6551 Test Head within this District, and its use in semiconductor manufacturing operations, supports the conclusion that Warde Taiwan's products have entered this District through commercial channels serving the United States market, and that the alleged acts of infringement arise out of or relate to Warde Taiwan's contacts with the United States and Texas.

14. Warde Taiwan's conduct in supplying, marketing, and distributing the accused products, including the W6551 Test Head and other elastic membranes and retaining rings, provides a basis for the exercise of personal jurisdiction over Warde Taiwan in this action.

15. The stream of commerce established by Warde Taiwan, including direct shipments and indirect distribution through Warde Texas and/or Semigroup, has resulted in accused products reaching customers in Texas and this District, further supporting the exercise of personal jurisdiction over Warde Taiwan in this action.

16. On information and belief, Semigroup, Warde Taiwan, and Warde Texas market, distribute, offer for sale, sell, and/or import the accused products into the United States, including Texas and this District.

17. Thus, on information and belief, Defendants' presence and activities in this District, including patent infringement as described below, give rise to the claims set forth herein.

18. Venue is proper in this District under 28 U.S.C. §§ 1391(a)-(d) and 1400(b).

19. Venue is proper in this District as to Defendants Semigroup and Warde Texas because they reside in and are corporate citizens of this District and have committed and continue to commit acts of infringement in this District giving rise to this civil action.

20. Venue is proper in this District as to Defendant Warde Taiwan because it is a foreign corporation that does not reside in the United States and therefore may be sued in any judicial district pursuant to 28 U.S.C. § 1391(c)(3), including this District.

21. Defendants are properly joined in this action pursuant to 35 U.S.C. § 299 because Ebara's claims against Defendants arise out of the same series of transactions, occurrences, and accused products and involve common questions of fact. The acts of infringement alleged herein stem from the making, using, selling, offering for sale, and/or importing of the Accused Products in the United States.

THE ASSERTED PATENTS

22. U.S. Patent No. 9,573,244 ("the '244 Patent") is entitled "Elastic Membrane, Substrate Holding Apparatus, and Polishing Apparatus." The '244 Patent discloses, inter alia, novel elastic membrane structures for semiconductor wafer polishing systems, where the membrane is designed with specific wall arrangements and pressure chambers that enable highly precise control over the polishing process, especially at the wafer's edge. The membrane features uniquely configured surfaces and walls that interact to maintain uniform pressure and improve the consistency and quality of wafer planarization, addressing challenges in achieving optimal surface flatness in advanced semiconductor manufacturing. Ebara is the sole owner by assignment of all right, title, and interest in the '244 Patent. A true and correct copy of the '244 Patent is attached to this Complaint as **Exhibit A**.

23. U.S. Patent No. D766,849 ("the D'849 Patent") is entitled, "Substrate Retaining Ring". The D'849 Patent is an ornamental design for a substrate retaining ring, as shown and described. Ebara is the sole owner by assignment of all right, title, and interest in the D'849 Patent. A true and correct copy of the D'849 Patent is attached to this Complaint as **Exhibit B**.

24. U.S. Patent No. D769,200 ("the D'200 Patent") is entitled "Elastic Membrane for Semiconductor Wafer Polishing Apparatus". The D'200 Patent is an ornamental design for an elastic membrane for semiconductor wafer polishing apparatus, as shown and described. Ebara is the sole owner by assignment of all right, title, and interest in the D'200 Patent. A true and correct copy of the D'200 Patent is attached to this Complaint as **Exhibit C**.

25. U.S. Patent No. D770,990 (“the D’990 Patent”) is entitled “Elastic Membrane for Semiconductor Wafer Polishing Apparatus”. The D’990 Patent is an ornamental design for an elastic membrane for semiconductor wafer polishing apparatus, as shown and described. Ebara is the sole owner by assignment of all right, title, and interest in the D’990 Patent. A true and correct copy of the D’990 Patent is attached to this Complaint as **Exhibit D**.

26. U.S. Patent No. D808,349 (“the D’349 Patent”) is entitled “Elastic Membrane for Semiconductor Wafer Polishing Apparatus”. The D’349 Patent is an ornamental design for an elastic membrane for semiconductor wafer polishing apparatus, as shown and described. Ebara is the sole owner by assignment of all right, title, and interest in the D’349 Patent. A true and correct copy of the D’349 Patent is attached to this Complaint as **Exhibit E**.

27. U.S. Patent No. D813,180 (“the D’180 Patent”) is entitled “Elastic Membrane for Semiconductor Wafer Polishing Apparatus”. The D’180 Patent is an ornamental design for an elastic membrane for a semiconductor wafer polishing apparatus, as shown and described. Ebara is the sole owner by assignment of all right, title, and interest in the D’180 Patent. A true and correct copy of the D’180 Patent is attached to this Complaint as **Exhibit F**.

28. Defendants have had knowledge of the Asserted Patents and Ebara’s infringement allegations since, at least, July 10, 2026, when Defendants received cease-and-desist correspondence identifying the Asserted Patents and the accused activities.

THE ACCUSED PRODUCTS

29. The accused products are chemical mechanical polishing (CMP) components that Warde Texas and/or Warde Taiwan, and Semigroup have manufactured, imported, sold, and/or offered for sale as “drop-in replacements” for Ebara’s industry-recognized products.

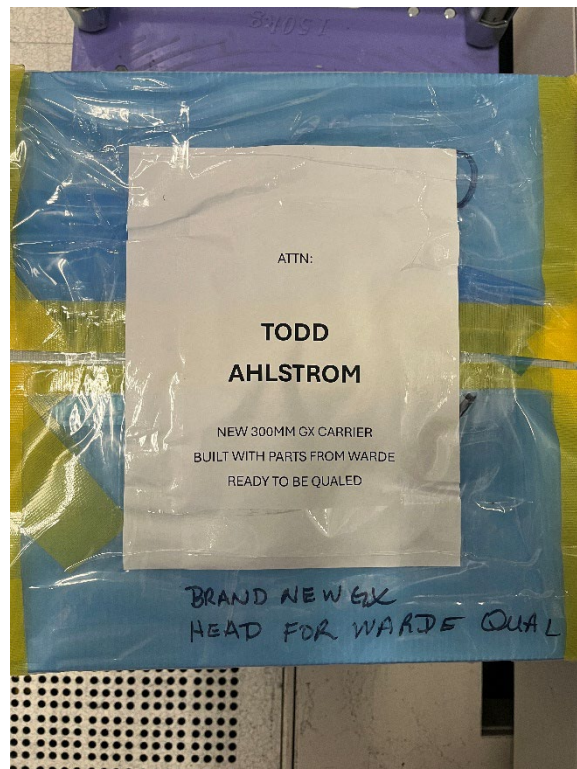
30. Upon information and belief, Warde Taiwan and/or Warde Texas have imported, offered for sale, and/or sold within this District a product, products, and/or component parts thereof including in the test head identified as “W6551 from CMESOE-C” (“W6551 Test Head”), as depicted in the **photograph at right**. This image shows the bottom (wafer-contact) side of the W6551 Test Head following qualification testing. The side shown, which faces and presses the substrate during CMP, shows visible features, including the concentric ring geometry, circumferential groove patterns, and the relative proportions of the ring to the membrane. These features present the same type of appearance addressed by the asserted design patents and reflect the same underlying geometry relevant to the asserted utility patent. The accompanying label, together with other information known to Ebara, indicates that this head was used within the Northern District of Texas.



31. For avoidance of doubt, the photograph depicts the membrane’s wafer-facing, contact surface. References herein to “upper/lower” or “inner/outer” identify features by reference to the geometry disclosed in the patent figures (e.g., radial webs, annular regions, and groove fields) rather than the camera’s vantage point or lighting conditions. Any reflections, translucency, or minor parallax introduced by the head’s construction do not alter the geometry depicted or the overall visual impression reasonably perceived by an ordinary observer examining the wafer-contact side in normal use.

32. On information and belief, where any portion of the wafer-facing ornamental surface is partially occluded in the photograph (e.g., by hardware or glare), the visible features permit reasonable inferences about the concealed portions of the same surface. In particular, the head and membrane employ concentric, axis-symmetric construction and common tooling datums such that the observed groove counts, spacings, and circumferential indexing continue uniformly around the axis; the step-to-land (terrace-to-band) relationships maintain fixed proportions dictated by pressure-distribution and sealing requirements; and the registration between the retaining ring and membrane annuli is governed by a fixed, coaxial interface. Accordingly, even where a feature on the wafer-contact side cannot be seen edge-to-edge in a single image, the engineered continuity of these elements supports the inference that the ornamental features present on the contact surface correspond to those claimed in the asserted design patents.

33. Upon information and belief, the W6551 Test Head was assembled using components supplied by Warde Taiwan and Warde Texas. Ebara obtained photographs associated with the W6551 Test Head, including the **photograph at right** of a container bearing the statement “New 300mm GX carrier built with parts from Warde ready to be qualed [sic].” And the photograph above depicts the assembled W6551 Test Head following qualification testing. These photographs, together with other information known to Ebara, support the inference that components supplied by Warde Taiwan and Warde Texas were incorporated into the completed W6551 Test Head.



34. Upon information and belief, Warde Taiwan manufactures, markets, offers for sale, and supplies replacement CMP components intended for use as substitutes for Ebara products. Prior to commencement of this action, Ebara obtained and preserved copies of Warde's product catalogue, which identified replacement components corresponding to Ebara products and OEM part numbers. Among other products, the catalogue identified part number MPS1108 ("Membrane G38F4 (50)"), part number RUS0018 ("Membrane G38F4 (70)"), and part number MPS0871 ("Retainer Ring (G3)"), the latter of which identified OEM part number F-112-767-1101 as a corresponding OEM component. Upon information and belief, Warde marketed and supplied such products as replacement components for Ebara CMP equipment.

35. Upon information and belief, Semigroup offers for sale, imports into, and sells within the United States, the State of Texas, and this District certain infringing products that are, on information and belief, manufactured and/or supplied by Warde Taiwan and Warde Texas. These unauthorized imitations, marketed by Semigroup as "drop-in replacements," include at least the following:

- (a) An unauthorized imitation of Ebara's industry-recognized CMP membrane model G38F4 (300 mm), marketed by Semigroup as a "drop-in replacement" under part number SGC-4000-032-4700, corresponding to Ebara part number C-4000-032-4700.¹
- (b) An unauthorized imitation of Ebara's industry-recognized 300 mm membrane for CMP systems,

¹ "SGC-4000-032-4700 [] Ebara Membrane G38F4, 300mm for Part Number C-4000-032-4700 [] Semigroup's Drop In Replacement for Ebara Membrane G38F4, 300mm for Part Number C-4000-032-4700 OEM Part Number SGC-4000-032-4700 [] Semigroup's Drop In Replacement for Ebara Membrane G38F4, 300mm for Part Number C-4000-032-4700" (SEMIGROUP TEXAS, LLC, <<https://www.semigroup.com/shop/consumables/sgc-4000-032-4700-semigroups-drop-in-replacement-for-ebara-membrane-g38f4-for-part-number-c-4000-032-4700/>> (last visited, August 4, 2026, attached as **Exhibit G**).

marketed by Semigroup as a “drop-in replacement” under part number SGC-4000-034-8500, corresponding to Ebara part number C-4000-034-8500.²

- (c) An unauthorized imitation of Ebara’s industry-recognized retaining ring, designed for 300 mm CMP applications (G3, 48 grooves), marketed by Semigroup as a “drop-in replacement” under part number SGA-1122-767-0001, corresponding to Ebara part number A-1122-767-0001.³
- (d) An unauthorized imitation of Ebara’s industry-recognized retaining ring, designed for 300 mm CMP applications (G2, 48 grooves), marketed by Semigroup as a “drop-in replacement” under part number SGC-3812-388-0001, corresponding to Ebara part number C-3812-388-0001.⁴

² “C-4000-034-8500 [] Ebara Membrane, 300mm [] OEM Part Number C-4000-034-8500 [] SemiGroup Drop-In Replacement SGC-4000-034-8500 for AMAT Part Number C-4000-034-8500 Ebara Membrane, 300mm” (SEMIGROUP TEXAS, LLC, <<https://www.semigroup.com/shop/cmp-parts/c-4000-034-8500-ebara-membrane-300mm>> (last visited August 4, 2026, attached as **Exhibit H**).

³ “A-1122-767-0001 [] Ebara 300mm, G3, 48 Grooves, Retaining Ring [] OEM Part Number A-1122-767-0001 [] SGA-1122-767-0001 Brand New Drop in Replacement Designed by Semigroup for Ebara 300mm, G3, 48 Grooves, Retaining Ring OEM Part Number A-1122-767-0001” (SEMIGROUP TEXAS, LLC, <<https://www.semigroup.com/shop/consumables/a-1122-767-0001-ebara-300mm-g3-48-grooves-retaining-ring>> (last visited, August 4, 2026, attached as **Exhibit I**).

⁴ “C-3812-388-0001 [] Ebara 300mm, G2, 48 Grooves, Retaining Ring [] OEM Part Number C-3812-388-0001 [] SGC-3812-388-0001 Brand New Drop in Replacement Designed by Semigroup for Ebara 300mm, G2, 48 Grooves, Retaining Ring OEM Part Number C-3812-388-0001”; (SEMIGROUP TEXAS, LLC, <<https://www.semigroup.com/shop/consumables/c-3812-388-0001-ebara-300mm-g2-48-grooves-retaining-ring/>> (last visited, August 4, 2026, attached as **Exhibit J**).

36. Although Semigroup’s website does not display images of the infringing products offered for sale, this omission does not shield Defendants from liability for design patent infringement. On information and belief, Warde Texas and Warde Taiwan supply the infringing products to Semigroup, which then lists and markets these products as “drop-in replacements” for Ebara’s industry-recognized components. The products at issue are well-known within the semiconductor manufacturing industry, and purchasers—acting as ordinary observers—are fully aware of the appearance and configuration of the original Ebara components. As such, the ordinary observer would readily recognize the substantial similarity between the Accused Products and the patented designs, regardless of whether product images are displayed on Semigroup’s website. The absence of images does not alter the fact that the Accused Products are intended to replicate the ornamental features of Ebara’s patented designs, and that Defendants’ conduct constitutes infringement under the ordinary observer standard.

37. Each Semigroup Accused Product offered for sale on its website is marketed as a “drop-in replacement” for Ebara’s commercial embodiments and is represented as corresponding to specific Ebara components. Defendants market these products as substitutes for Ebara products and identify them by reference to Ebara part numbers, reflecting copying of the appearance, configuration, and overall design of Ebara’s components.

38. After receiving Ebara’s July 10, 2026 cease-and-desist correspondence identifying the Asserted Patents and the accused activities, Defendants continued to market, offer for sale, sell, import, and/or supply the Accused Products, including as “drop-in replacements” for Ebara components. Defendants’ continued conduct after receiving actual notice of the Asserted Patents and Ebara’s infringement allegations supports Ebara’s claims for post-notice infringement, willfulness, enhanced damages, injunctive relief, and attorneys’ fees.

COUNT I – INFRINGEMENT OF U.S. PATENT NO. 9,573,244

39. Ebara incorporates by reference the preceding paragraphs as if fully set forth herein.

40. Upon information and belief, Defendants have infringed and continue to directly infringe the '244 Patent in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale in the United States, and/or importing into the United States, without authorization, the Accused Products that practice various claims of the '244 Patent literally or under the doctrine of equivalents.

41. Ebara has complied with all statutory requirements, including the requirements of 35 U.S.C. § 287, to pursue and recover for any infringement of the '244 Patent.

42. Upon information and belief, Defendants have directly infringed multiple claims of the '244 Patent, including independent claim 1, by making, using, selling, offering for sale, and/or importing into the United States the Accused Products in violation of 35 U.S.C. § 271(a).

43. Upon information and belief, and based on available product information, marketing materials, product compatibility representations, and the facts alleged herein, the W6551 Test Head incorporates an elastic membrane which contains each limitation of claim 1 of the '244 Patent. The W6551 Test Head includes a contact portion that is brought into contact with a substrate, such as a semiconductor wafer, for pressing the substrate against a polishing pad. The membrane further includes a first edge circumferential wall that extends upwardly from the peripheral edge of the contact portion, as visible and observable in the image. The membrane also includes a second edge circumferential wall having a horizontal portion that is connected to an inner circumferential surface of the first edge circumferential wall. The inner circumferential surface of the first edge circumferential wall comprises both an upper inner circumferential surface and a lower inner circumferential surface, each of which is perpendicular to the contact portion. The upper inner circumferential surface and the upper surface of the horizontal portion together define a first edge pressure chamber, while the lower inner circumferential surface and the lower surface of the horizontal portion together define a second edge pressure chamber located below the first edge pressure chamber. The upper inner circumferential surface extends upwardly from

the horizontal portion of the second edge circumferential wall, and the lower inner circumferential surface extends downwardly from the horizontal portion of the second edge circumferential wall. Based on the visible portions, the accused product is substantially the same as the claimed configuration and is used in a substrate holding apparatus for pressing a substrate against a polishing pad, thereby satisfying the limitations of claim 1, either literally or under the doctrine of equivalents.

44. Upon information and belief, the accused product identified as Semigroup SGC-4000-034-8500, marketed as a drop-in replacement for Ebara Membrane Part Number C-4000-034-8500, incorporates each limitation of claim 1 of the '244 Patent. This product includes a contact portion designed to engage a substrate for pressing it against a polishing pad, a first edge circumferential wall extending upwardly from the peripheral edge of the contact portion, and a second edge circumferential wall having a horizontal portion connected to an inner circumferential surface of the first edge circumferential wall. The inner circumferential surface of the first edge circumferential wall comprises both an upper inner circumferential surface and a lower inner circumferential surface, each perpendicular to the contact portion. The upper inner circumferential surface and the upper surface of the horizontal portion together define a first edge pressure chamber, while the lower inner circumferential surface and the lower surface of the horizontal portion together define a second edge pressure chamber located below the first edge pressure chamber. The upper inner circumferential surface extends upwardly from the horizontal portion of the second edge circumferential wall, and the lower inner circumferential surface extends downwardly from the horizontal portion of the second edge circumferential wall. The configuration and arrangement of these elements in the accused product are substantially the same as those recited in claim 1 of the '244 Patent, and the product is used in a substrate holding apparatus for pressing a substrate against a polishing pad, thereby infringing claim 1.

45. Upon information and belief, Defendants have induced infringement of the ‘244 Patent under 35 U.S.C. § 271(b) by knowingly and intentionally encouraging, aiding, and instructing others, including customers, distributors, and end users, to directly infringe the ‘244 Patent through the manufacture, use, sale, offer for sale, and importation of the Accused Products. Defendants have provided the Accused Products together with instructions, marketing materials, and representations that the products are “drop-in replacements” for Ebara’s patented components, with the specific intent that others will use the Accused Products in a manner that infringes one or more claims of the ‘244 Patent. As alleged in Paragraph 28, Defendants received cease-and-desist correspondence on July 10, 2026 identifying the Asserted Patents and accusing Defendants’ activities of infringement. Despite that notice, Defendants have continued to market, offer for sale, sell, import, and promote the Accused Products as substitutes for Ebara components and have continued to encourage customers to use the Accused Products in an infringing manner.

46. Upon information and belief, Defendants have also contributorily infringed the ‘244 Patent under 35 U.S.C. § 271(c) through their supply of the Accused Products to customers that incorporate the Accused Products into infringing systems and apparatuses. The Accused Products have no substantial non-infringing uses and are especially made or adapted for use in products and processes that infringe the ‘244 Patent. As alleged in Paragraph 28, Defendants received notice of the Asserted Patents and the accused infringement no later than July 10, 2026. Despite that notice, Defendants have continued to sell, offer for sale, import, and supply the Accused Products. The Accused Products embody a material part of the claimed invention, and Defendants’ contributory infringement is ongoing.

47. The infringement of the ‘244 Patent has been, and continues to be, willful. As alleged in Paragraph 28, Defendants received notice of the Asserted Patents and Ebara’s allegations of infringement no later than July 10, 2026. Despite that notice, Defendants have continued to make, use, sell, offer for sale, market, and/or import the Accused Products.

Defendants' continued infringement following receipt of actual notice constitutes deliberate and knowing infringement warranting enhanced damages under 35 U.S.C. § 284.

48. Ebara has been irreparably harmed by Defendants' infringement of the '244 Patent and will continue to be harmed unless and until Defendants' infringement is enjoined by this Court.

49. By their actions, Defendants have injured Ebara and are liable to Ebara for infringement of the '244 Patent pursuant to 35 U.S.C. § 271. Ebara is entitled to damages as set forth in at least 35 U.S.C. §§ 284 and 285.

COUNT II – INFRINGEMENT OF U.S. DESIGN PATENT NO. D766,849
(Substrate Retaining Ring)

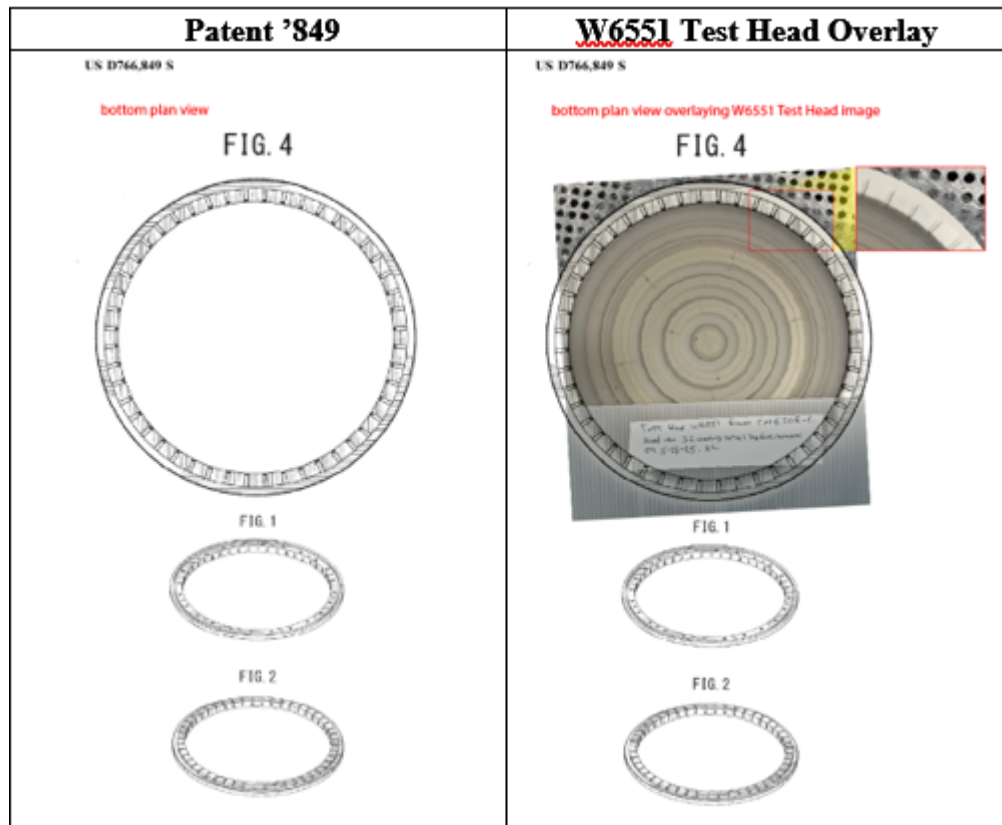
50. Ebara incorporates by reference the preceding paragraphs as if fully set forth herein.

51. Defendants have directly infringed, and continue to directly infringe, U.S. Design Patent No. D766,849 ("the D'849 Patent") in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale in the United States, and/or importing into the United States, without authorization, Accused Products that embody a design that is the same as or substantially the same as the patented design under the ordinary observer standard.

52. The D'849 Patent claims the ornamental design for a substrate retaining ring, as shown in the drawings contained therein. The claim is defined by the visual representations in Figures 1–10 of the D'849 Patent.

53. Upon information and belief, the W6551 Test Head incorporates a substrate retaining ring whose overall visual impression is, to an ordinary observer, the same as or substantially the

same as the ornamental design claimed in the D'849 Patent. As shown in the figure at **right**—pairing an excerpt of the D'849 patent (bottom-plan view) with an illustrative overlay of the



W6551 Test Head photographed on the wafer-contact (bottom) side—the retaining-ring circumference, the evenly spaced circumferential serrations/notches (groove field), and the relative proportions between the grooved band and the inner opening align closely with the patented design. The right-hand panel also includes a small inset magnifying a segment of the ring to illustrate the individual groove/land pattern and its circumferential indexing, and reproduces additional patent views beneath the main image (labeled FIG. 1 and FIG. 2) for perspective and alternate plan confirmation. Although certain ornamental features are partially occluded by hardware or lighting, the visible portions—including the groove orientation, rim profile, and proportional relationships—closely match the patented design, and the accused product is

substantially the same in overall visual impression. As reflected in the handwritten label visible in the image and other information known to Ebara, the W6551 Test Head is associated with Warde. These allegations are made on information and belief and will be further tested and confirmed, as appropriate, through side-by-side comparison of exemplars upon production in discovery.

54. Upon information and belief, Semigroup offers for sale a retaining ring marketed as a “drop-in replacement” under part number SGA-1122-767-0001 (corresponding to Ebara part number A-1122-767-0001). Even if Semigroup’s web listing does not display detailed images, purchasers in this industry—acting as ordinary observers—know the appearance of the referenced replacement ring and would recognize its overall visual impression as substantially the same as the design claimed in the D’849 Patent. Semigroup’s “drop-in replacement” parts are designed and marketed to replicate the appearance and overall visual impression of Ebara’s original components. Purchasers familiar with Ebara’s products would recognize the accused retaining ring as substantially the same as the design claimed in the D’849 Patent, and any differences are minor and do not alter the overall visual impression conveyed to an ordinary observer.

55. Ebara has complied with all statutory requirements, including the requirements of 35 U.S.C. § 287, to pursue and recover for any infringement of the D’849 Patent.

56. Ebara has been and continues to be injured and damaged by Defendants’ infringement of the D’849 Patent. Ebara is entitled to relief under 35 U.S.C. § 289, including Defendants’ total profits from the sale of articles to which the patented design, or any colorable imitation thereof, has been applied, as well as all other remedies available under Title 35.

57. Defendants’ ongoing infringement has caused and will continue to cause irreparable harm to Ebara. Ebara seeks injunctive relief and monetary damages, including at least Defendants’ total profits under § 289 and any additional relief permitted by law.

COUNT III – INFRINGEMENT OF U.S. DESIGN PATENT NO. D769,200
(Elastic Membrane for Semiconductor Wafer Polishing Apparatus)

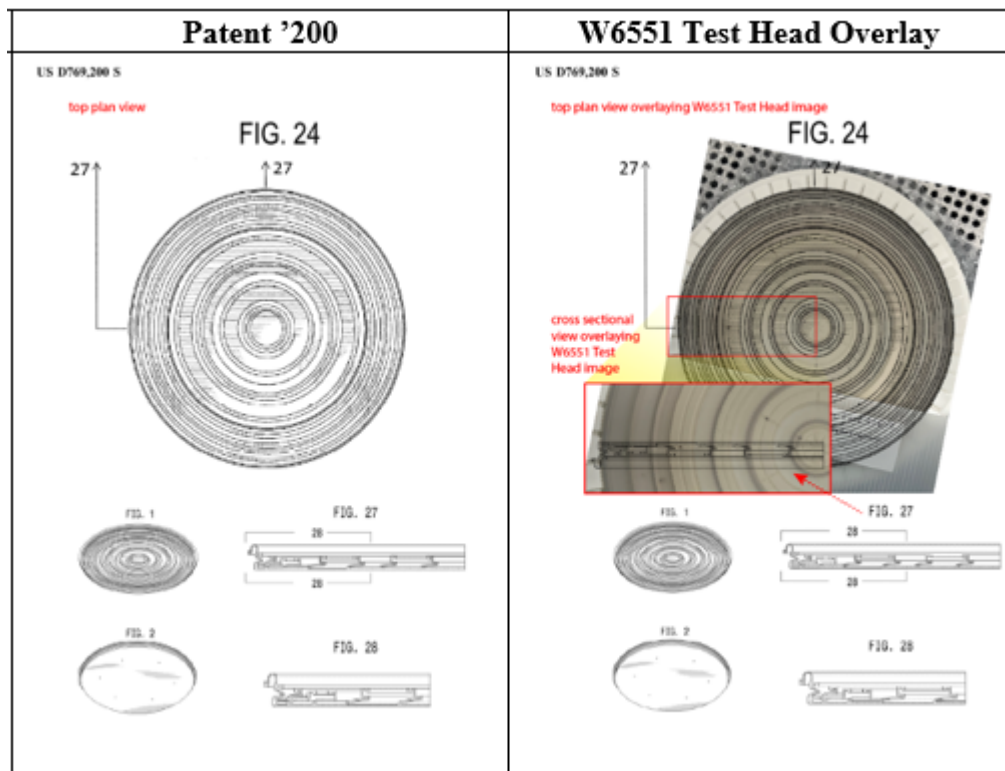
58. Ebara incorporates by reference the preceding paragraphs as if fully set forth herein.

59. Defendants have directly infringed, and continue to directly infringe, U.S. Design Patent No. D769,200 (“the D’200 Patent”) in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale in the United States, and/or importing into the United States, without authorization, Accused Products that embody a design that is the same as or substantially the same as the patented design under the ordinary observer standard.

60. The D’200 Patent claims the ornamental design for an elastic membrane for semiconductor wafer polishing apparatus, as shown in the drawings contained therein. The claim is defined by the visual representations in Figures 1–28 of the D’200 Patent.

61. Upon information and belief, the W6551 Test Head contains an elastic membrane whose installed, visible features present, to an ordinary observer, an overall visual impression that is the same as or

substantially the same as the ornamental design claimed in the D’200 Patent. As shown in the figure **at right**—pairing a top-plan patent figure (FIG. 24 of the D’200 Patent) with an



illustrative overlay of the W6551 Test Head photographed on the wafer-contact (bottom) side—the concentric annular regions, the relative widths and spacings of the circular bands, and the

progressive stepped/terraced transitions align closely with the patented design. The right-hand panel also includes a cross-sectional overlay (aligned with FIG. 27 and FIG. 28 of the D'200 Patent) that illustrates how the visible step heights, slopes, and radial transitions observed on the W6551 membrane correspond to the claimed ornamental geometry. Beneath the main image, additional patent views (including FIGS. 27–28 and FIG. 2) appear in both the patent and overlay panels to provide perspective and confirm consistency across alternate views. Although certain ornamental features are partially obscured by hardware, shadowing, or glare, the visible portions—including the concentric ring pattern, the annular band proportions, and the radial transitions—closely match the D'200 design, and the accused product is substantially the same in overall visual impression. As reflected in the handwritten label visible in the image and other information known to Ebara, the W6551 Test Head is associated with Warde. These allegations are made on information and belief and will be further substantiated through side-by-side comparison of physical exemplars obtained in discovery.

62. Upon information and belief, Semigroup offers for sale an elastic membrane marketed as a “drop-in replacement” under part number SGC-4000-034-8500 (corresponding to Ebara part number C-4000-034-8500) for 300 mm CMP applications. Even if the web listing lacks detailed imagery, ordinary observers in this market understand the appearance of the referenced replacement membrane and would recognize the overall visual impression as substantially the same as the D'200 design. Semigroup’s “drop-in replacement” parts are designed and marketed to replicate the appearance and overall visual impression of Ebara’s original components. Purchasers familiar with Ebara’s products would recognize the accused membrane as substantially the same as the design claimed in the D'200 Patent, and any differences are minor and do not alter the overall visual impression conveyed to an ordinary observer.

63. Ebara has complied with all statutory requirements, including the requirements of 35 U.S.C. § 287, to pursue and recover for any infringement of the D'200 Patent.

64. Ebara has been and continues to be injured and damaged by Defendants' infringement of the D'200 Patent. Ebara is entitled to relief under 35 U.S.C. § 289, including Defendants' total profits from the sale of articles to which the patented design, or any colorable imitation thereof, has been applied, as well as all other remedies available under Title 35.

65. Defendants' ongoing infringement has caused and will continue to cause irreparable harm to Ebara. Ebara seeks injunctive relief and monetary damages, including at least Defendants' total profits under § 289 and any additional relief permitted by law.

COUNT IV: INFRINGEMENT OF U.S. DESIGN PATENT NO. D770,990
(Elastic Membrane for Semiconductor Wafer Polishing Apparatus)

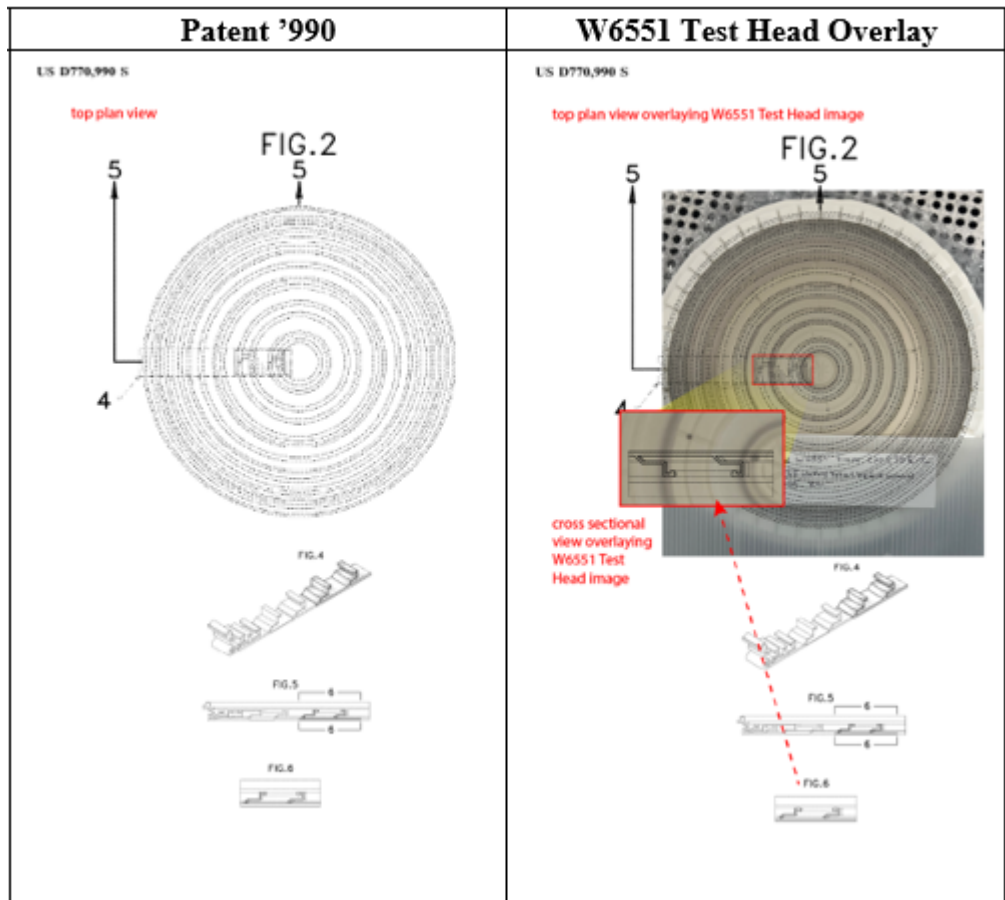
66. Ebara incorporates by reference the preceding paragraphs as if fully set forth herein.

67. Defendants have directly infringed, and continue to directly infringe, U.S. Design Patent No. D770,990 ("the D'990 Patent") in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale in the United States, and/or importing into the United States, without authorization, Accused Products that embody a design that is the same as or substantially the same as the patented design under the ordinary observer standard.

68. The D'990 Patent claims the ornamental design for an elastic membrane for semiconductor wafer polishing apparatus, as shown in the drawings contained therein. The claim is defined by the visual representations in Figures 1–6 of the D'990 Patent.

69. Upon information and belief, the elastic membrane installed in the W6551 Test Head exhibits the concentric geometry, stepped regions, and proportional relationships that, to an ordinary

observer, render the overall visual impression the same as or substantially the same as the ornamental design claimed in the D'990 Patent. As shown in the figure at right—pairing the



D'990 Patent's top-plan depiction with an illustrative overlay of the W6551 Test Head photographed on the wafer-contact (bottom) side—the concentric annular structure, the relative spacing and widths of the circular bands, and the stepped/terraced transitions correspond closely to the claimed ornamental design. The overlay aligns the photographed membrane with the patented plan view labeled FIG. 1, and the right-hand panel further reproduces the D'990 Patent's alternate views beneath the main image to show consistency in contour, radial transitions, and proportion across perspectives. The inset magnification included in the overlay highlights the continuity of the concentric bands and the smooth step boundaries, demonstrating the same

characteristic geometry that appears in the asserted design. Although certain ornamental features are partially obscured by fixture hardware, slight glare, or the angle of the photograph, the visible portions—including the stepped regions, overall annular sequencing, and radial proportionality—closely match the patented design, and the accused structure is substantially the same in overall visual impression. As reflected in the handwritten label visible in the image and other information known to Ebara, the W6551 Test Head is associated with Warde. These allegations are made on information and belief and will be further tested and confirmed, as appropriate, through side-by-side comparison of physical exemplars upon production in discovery.

70. Upon information and belief, Semigroup offers for sale elastic membranes advertised as “drop-in replacements” for Ebara CMP heads, including products corresponding to Ebara’s 300 mm membranes. Even absent complete product imagery, ordinary observers in the CMP market know the appearance of the referenced replacement membranes and would recognize the overall visual impression as substantially the same as the D’990 Patent. Semigroup’s “drop-in replacement” parts are designed and marketed to replicate the appearance and overall visual impression of Ebara’s original components. Purchasers familiar with Ebara’s products would recognize the accused membrane as substantially the same as the design claimed in the D’990 Patent, and any differences are minor and do not alter the overall visual impression conveyed to an ordinary observer.

71. Ebara has complied with all statutory requirements, including the requirements of 35 U.S.C. § 287, to pursue and recover for any infringement of the D’990 Patent.

72. Ebara has been and continues to be injured and damaged by Defendants’ infringement of the D’990 Patent. Ebara is entitled to relief under 35 U.S.C. § 289, including Defendants’ total profits from the sale of articles to which the patented design, or any colorable imitation thereof, has been applied, as well as all other remedies available under Title 35.

73. Defendants' ongoing infringement has caused and will continue to cause irreparable harm to Ebara. Ebara seeks injunctive relief and monetary damages, including at least Defendants' total profits under § 289 and any additional relief permitted by law.

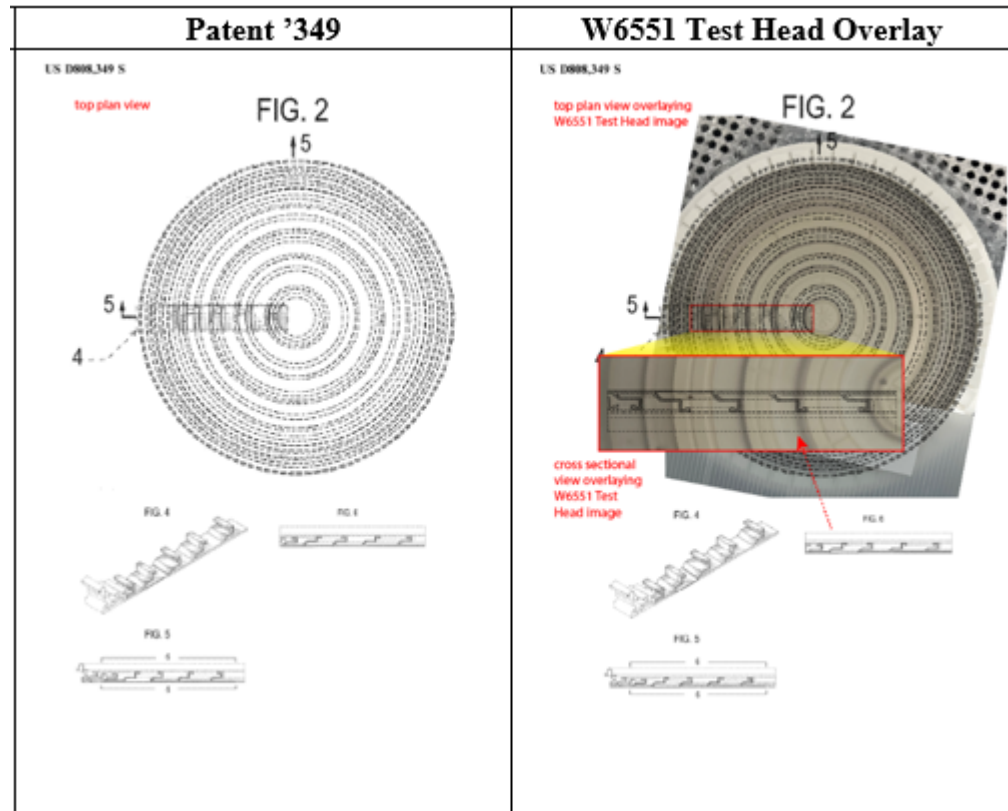
COUNT V: INFRINGEMENT OF U.S. DESIGN PATENT NO. D808,349
(Elastic Membrane for Semiconductor Wafer Polishing Apparatus)

74. Ebara incorporates by reference the preceding paragraphs as if fully set forth herein.

75. Defendants have directly infringed, and continue to directly infringe, U.S. Design Patent No. D808,349 ("the D'349 Patent") in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale in the United States, and/or importing into the United States, without authorization, Accused Products that embody a design that is the same as or substantially the same as the patented design under the ordinary observer standard.

76. The D'349 Patent claims the ornamental design for an elastic membrane for semiconductor wafer polishing apparatus, as shown in the drawings contained therein. The claim is defined by the visual representations in Figures 1–6 of the D'349 Patent.

77. Upon information and belief, the membrane installed in the W6551 Test Head displays concentric annuli, stepped surfaces, and proportional relationships that, to an ordinary observer, render the overall visual impression the same as or substantially the same as the ornamental design claimed in the D'349 Patent. As shown in the figure at right—pairing the D'349 Patent's top-plan view (FIG. 2) with



an illustrative overlay of the W6551 Test Head photographed on the wafer-contact (bottom) side—the concentric ring pattern, the relative widths and spacings of the annular bands, and the stepped/terraced transitions align closely with the ornamental design disclosed in the D'349 Patent. The right-hand overlay also includes a highlighted cross-sectional inset corresponding to the patented section 5–5 view, showing how the visible radial steps, slopes, and boundary transitions in the W6551 Membrane match the cross-sectional ornamental geometry appearing in FIGS. 4–5 of the patent. Additional patent views reproduced beneath the main image in both panels (including FIGS. 1, 3, and 4) further confirm the consistency of proportion and contour between the patented design and the photographed wafer-contact surface. Although certain ornamental features are

partially obscured by mounting hardware, shadowing, or the angle of the photograph, the visible portions— including the annular sequencing, concentric band proportions, and step geometry— closely match the patented design, and the accused structure conveys substantially the same overall visual impression. As reflected in the handwritten label visible in the image and other information known to Ebara, the W6551 Test Head is associated with Warde. These allegations are made on information and belief and will be further tested and confirmed, as appropriate, through side-by-side comparison of physical exemplars upon production in discovery.

78. Upon information and belief, Semigroup offers for sale elastic membranes advertised as “drop-in replacements” for Ebara CMP heads, including 300 mm products. Even without full imagery on the listing, ordinary observers in this market understand the appearance of the referenced replacement membranes and would recognize the overall visual impression as substantially the same as the D’349 design. Semigroup’s “drop-in replacement” parts are designed and marketed to replicate the appearance and overall visual impression of Ebara’s original components. Purchasers familiar with Ebara’s products would recognize the accused membrane as substantially the same as the design claimed in the D’349 Patent, and any differences are minor and do not alter the overall visual impression conveyed to an ordinary observer.

79. Ebara has complied with all statutory requirements, including the requirements of 35 U.S.C. § 287, to pursue and recover for any infringement of the D’349 Patent.

80. Ebara has been and continues to be injured and damaged by Defendants’ infringement of the D’349 Patent. Ebara is entitled to relief under 35 U.S.C. § 289, including Defendants’ total profits from the sale of articles to which the patented design, or any colorable imitation thereof, has been applied, as well as all other remedies available under Title 35.

81. Defendants’ ongoing infringement has caused and will continue to cause irreparable harm to Ebara. Ebara seeks injunctive relief and monetary damages, including at least Defendants’ total profits under § 289 and any additional relief permitted by law.

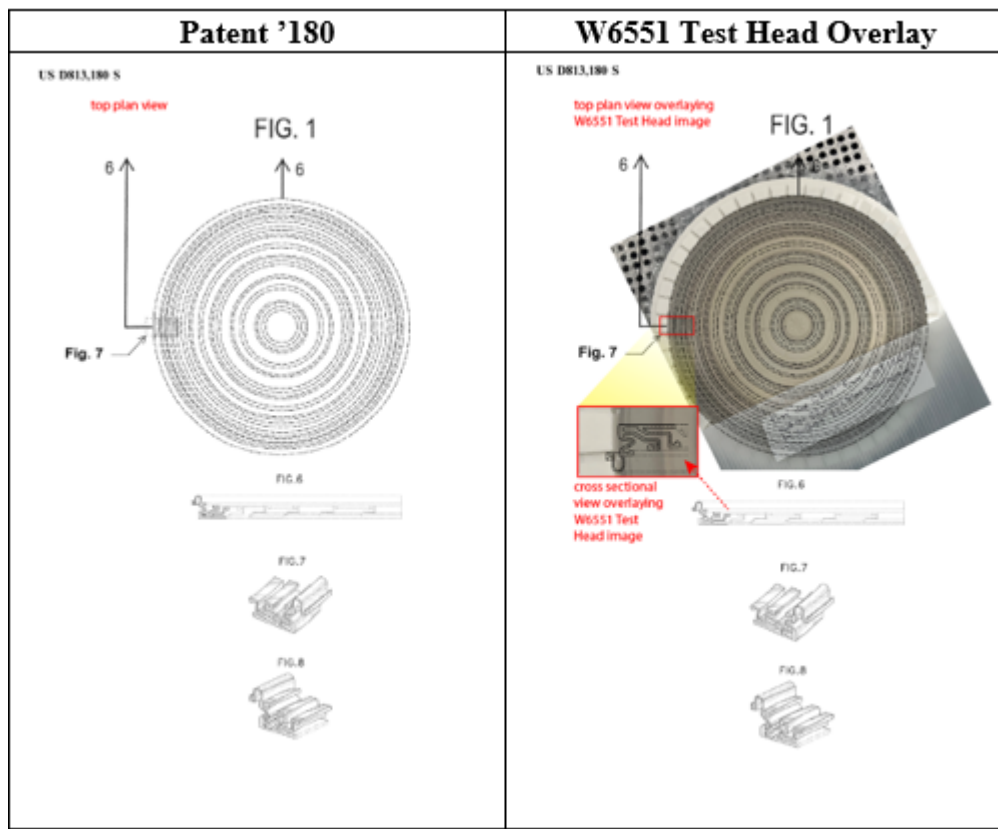
COUNT VI: INFRINGEMENT OF U.S. DESIGN PATENT NO. D813,180
(Elastic Membrane for Semiconductor Wafer Polishing Apparatus)

82. Ebara incorporates by reference the preceding paragraphs as if fully set forth herein.

83. Defendants have directly infringed, and continue to directly infringe, U.S. Design Patent No. D813,180 (“the D’180 Patent”) in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale in the United States, and/or importing into the United States, without authorization, Accused Products that embody a design that is the same as or substantially the same as the patented design under the ordinary observer standard.

84. The D’180 Patent claims the ornamental design for an elastic membrane for semiconductor wafer polishing apparatus, as shown in the drawings contained therein. The claim is defined by the visual representations in Figures 1–16 of the D’180 Patent.

85. Upon information and belief, the elastic membrane installed in the W6551 Test Head exhibits concentric structures, stepped and terraced radial regions, and proportional relationships that, to an ordinary observer, render the overall visual impression the same as or substantially the same as the ornamental design claimed in the D’180 Patent. As shown in the figure at right—



pairing the D'180 patent's top-plan view (FIG. 1) with an illustrative overlay of the W6551 Test Head photographed on the wafer-contact (bottom) side—the concentric ring system, the relative widths and spacing of the annular bands, and the stepped/terraced transitions align closely with the ornamental geometry disclosed in the D'180 Patent. The overlay also includes a highlighted cross-sectional inset corresponding to the patented section 6–6 view, demonstrating that the visible step heights, slopes, and radial transitions in the W6551 membrane match those shown in FIG. 6 of the patent. Additional patent views (including FIG. 7 and FIG. 8) are reproduced beneath the main images in both panels, confirming consistency between the photographed structure and the alternate views of the patented design. Although certain ornamental features are partially obscured by mounting hardware, shadowing, or the angle of the photograph, the visible portions—including the stepped radial transitions, overall annular sequencing, and proportional relationships—closely match the patented design, and the accused structure conveys substantially the same overall visual impression. As reflected in the handwritten label visible in the image and other information known to Ebara, the W6551 Test Head is associated with Warde. These allegations are made on information and belief and will be further tested and confirmed, as appropriate, through side-by-side comparison of physical exemplars upon production in discovery.

86. Upon information and belief, Semigroup offers for sale elastic membranes marketed as “drop-in replacements” for Ebara CMP heads, including 300 mm membranes. Even if detailed images are not provided, ordinary observers in the CMP industry know the appearance of the referenced replacement membranes and would recognize the overall visual impression as substantially the same as the D'180 Patent. Semigroup's “drop-in replacement” parts are designed and marketed to replicate the appearance and overall visual impression of Ebara's original components. Purchasers familiar with Ebara's products would recognize the accused membrane as substantially the same as the design claimed in the D'180 Patent, and any differences are minor and do not alter the overall visual impression conveyed to an ordinary observer.

87. Ebara has complied with all statutory requirements, including the requirements of 35 U.S.C. § 287, to pursue and recover for any infringement of the D'180 Patent.

88. Ebara has been and continues to be injured and damaged by Defendants' infringement of the D'180 Patent. Ebara is entitled to relief under 35 U.S.C. § 289, including Defendants' total profits from the sale of articles to which the patented design, or any colorable imitation thereof, has been applied, as well as all other remedies available under Title 35.

89. Defendants' ongoing infringement has caused and will continue to cause irreparable harm to Ebara. Ebara seeks injunctive relief and monetary damages, including at least Defendants' total profits under § 289 and any additional relief permitted by law.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Ebara prays for relief as follows:

- A. A judgment that Defendants have infringed, directly and/or indirectly, the Asserted Patents, and that such infringement has been willful at least after Defendants received notice of the Asserted Patents and Ebara's infringement allegations;
- B. Compensatory damages in an amount commensurate with Defendants' infringement of the Asserted Patents, including without limitation lost profits and no less than a reasonable royalty;
- C. Permanent injunctive relief prohibiting Defendants from further acts of infringement of the Asserted Patents;
- D. Pre-judgment interest on all damages awarded to Ebara;
- E. Post-judgment interest on all sums awarded to Ebara from the date of the judgment;
- F. An award of treble damages pursuant to 35 U.S.C. § 284;

- G. An award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285;
and
- H. Any and all other relief that the Court deems just and equitable.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Ebara demands a trial by jury on all issues on which trial by jury is available under applicable law.

DATED: August 4, 2026 BAKER & HOSTETLER LLP

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