

IN THE UNITED STATES DISTRICT COURT  
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA  
CIVIL ACTION NO.:

PREMARK FEG L.L.C.

and

ILLINOIS TOOL WORKS INC.

and

ITW FOOD EQUIPMENT GROUP, LLC

Plaintiffs,

v.

CHAMPION INDUSTRIES INC.

Defendant.

**FIRST AMENDED COMPLAINT**

**(JURY TRIAL DEMANDED)**

NOW COME Plaintiffs PREMARK FEG L.L.C. (“PREMARK”), ILLINOIS TOOL WORKS INC. (“ITW”) and ITW FOOD EQUIPMENT GROUP, LLC (“ITW FEG”), through counsel, and allege as their complaint against the Defendant the following:

**PARTIES**

1. PREMARK is a limited liability company organized and existing under the laws of the State of Delaware and has an address at 155 Harlem Ave., Glenview, Illinois 60025.
2. ITW is a corporation organized and existing under the laws of the State of Delaware and has an address at 155 Harlem Ave., Glenview, Illinois 60025.
3. ITW FEG is a limited liability company organized under the laws of the State of Delaware and has an address at 155 Harlem Ave., Glenview, Illinois 60025.

4. CHAMPION INDUSTRIES INC. ("CHAMPION") is a corporation organized and existing under the laws of North Carolina and has a principal place of business at 3765 Champion Blvd, Winston-Salem, North Carolina 27105.

### **JURISDICTION AND VENUE**

5. This is an action for patent infringement arising under the patent laws of the United States. The Court has original and exclusive jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

6. CHAMPION resides within this judicial district. Pursuant to 28 U.S.C. §§ 1391(c) and 1400(b), venue is proper in this district where CHAMPION is subject to personal jurisdiction.

### **BACKGROUND FACTS**

7. PREMARK is the owner by assignment of United States Patent No. 9,521,941, entitled "Warewash Machine Chemical Sensor And Related System And Method," which was duly and legally issued by the United States Patent and Trademark Office on December 20, 2016 ("the '941 Patent"). A true copy of the '941 Patent is attached as Exhibit A.

8. The '941 Patent is directed to a chemical sensor that is adapted to be placed along a chemical feed line such that chemical flowing along the line and through the sensor can be detected by the sensor. The chemical sensor includes a housing with a through passage for chemical flow, first and second openings that communicate with the through passage, and first and second electrodes. The electrodes have a plate configuration, with a unitary depression. The electrodes are mounted on the housing in alignment with the openings such that an inwardly facing surface of each unitary depression can contact chemical flowing through the passage in the housing. The '941 Patent is also directed to a warewash machine that incorporates a chemical sensor into a chemical feed line of the warewash machine.

9. The '941 Patent is presumed valid pursuant to 35 U.S.C. §282.
10. PREMARK is the owner by assignment of United States Patent No. 9,872,596, entitled "Warewash Machine Chemical Sensor And Related System And Method," which was duly and legally issued by the United States Patent and Trademark Office on January 23, 2018 ("the '596 Patent"). A true copy of the '596 Patent is attached as Exhibit M.
11. The '596 Patent is directed to methods of detecting or monitoring chemical in a chemical feed line of a warewash machine using a flow through sensor in the chemical feed line.
12. The '596 Patent is presumed valid pursuant to 35 U.S.C. §282.
13. ITW is an affiliate of PREMARK, is licensed under the '941 Patent and the '596 Patent and has a right to sue for infringement of the '941 Patent and the '596 Patent.
14. ITW FEG is an affiliate of PREMARK and ITW and is sublicensed under the '941 Patent and the '596 Patent.
15. ITW FEG is one of the nation's leading suppliers of commercial food equipment. Among its many, varied products, ITW FEG manufactures and sells warewash machines that are used in commercial applications such as cafeterias and restaurants.
16. ITW FEG makes and sells commercial warewash machines that embody and/or perform the inventions of the '941 Patent and the '596 Patent. A photograph of an ITW FEG commercialized version of the patented chemical sensor of the '941 Patent is attached as Exhibit B (the "ITW FEG Sensor"). The ITW FEG Sensor is within the scope of at least claims 1-3 and 7-8 of the '941 Patent. The ITW FEG Sensor is consistent with the chemical sensor limitations of claims 1, 7 and 13 of the '596 Patent.
17. CHAMPION competes directly with ITW FEG in the market for commercial warewash machines.

18. For a number of years, CHAMPION and ITW FEG have engaged in direct competition for the supply of hood-type warewash machines to various customers, including major restaurant chains.

19. CHAMPION manufactures and sells a hood-type warewash machine under model designation DH5000T VHR. A copy of the specification sheet for the CHAMPION machine is attached as Exhibit C.

20. The inclusion of chemical sensing in a warewash machine to assure that the machine will not operate under situations where the chemical supply to the machine is low or empty is considered important by some customers.

21. To the knowledge of PREMARK, prior to 2018, the CHAMPION model DH5000T VHR machine could be used with a conductivity sensor in the machine wash tank, but was not offered with a chemical sensor along a chemical feed line of the machine.

22. A conductivity sensor within a machine wash tank is not as effective or reliable at determining a low or empty chemical condition of the machine as is a chemical sensor located along the chemical feed line of the machine.

23. During the fourth quarter of 2017, CHAMPION and ITW FEG began participating in a competitive proposal process for sales to a major restaurant chain customer "MRCC"). In early 2018, MRCC initially awarded CHAMPION the business based upon the CHAMPION model DH5000T VHR machine with a conductivity sensor in the wash tank.

24. On information and belief, in the face of doubt about its ability to maintain the business of MRCC given the limited ability of the conductivity sensor in the wash tank to adequately identify a low or empty chemical condition, CHAMPION undertook a strategy to

produce a version of the CHAMPION model DH5000T VHR machine incorporating a chemical sensor along the chemical feed line of the machine.

25. In the absence of its own available technology to adequately and timely address demand by MRCC for chemical sensing along the feed line, CHAMPION purchased ITW FEG Sensors from a third party, began incorporating an ITW FEG Sensor into the chemical feed line of the CHAMPION model DH5000T VHR machine and subsequently began selling that version of the machine (the “First Accused 5000 Model Machine”) to MRCC.

26. In February 2019, CHAMPION participated as an exhibitor at the 2019 North American Association of Food Equipment Manufacturers (NAFEM) trade show in Orlando, Florida (“2019 NAFEM Show”).

27. On at least February 9, 2019, CHAMPION displayed a recently introduced model DH6000T VHR machine in the CHAMPION booth at the 2019 NAFEM Show.

28. The model DH6000T-VHR machine displayed by CHAMPION included a built in detergent and rinse aid pump system with a new chemical sensor produced by Champion and connected in a chemical feedline of the machine. A photograph of the CHAMPION inline chemical sensor observable through a chemical sensor viewing window of the model DH6000T VHR machine (the “Accused Sensor”) is attached as Exhibit D.

29. Champion is also promoting other model 6000 machines, including the model DH6000, the model DH600T, and the model DH6000 VHR,

30. Specification sheets for the model DH6000T VHR, model DH6000, model DH6000T, and model DH6000 VHR machines (collectively the “6000 Models”) are attached as Exhibit E.

31. As shown in the specification sheets of Exhibit E, all of the 6000 Models are available with the built in detergent and rinse aid pump system with the chemical feed line chemical sensor as an option (collectively the “Accused 6000 Model Machines”).

32. On information and belief, CHAMPION also incorporated the Accused Sensor into a later version of the CHAMPION model DH5000T VHR machine and subsequently began selling that version of the machine (the “Second Accused 5000 Model Machine”) to at least MRCC.

33. CHAMPION also manufactures and sells replacement parts for its warewash machines. A true copy of the Champion Industries Service Replacement Parts 2019 List Price Guide (“the CHAMPION Parts Guide”) is attached as Exhibit F.

34. Page 54 of the CHAMPION Parts Guide identifies components of the Accused Sensor as item number 116853 DETERGENT SENSOR, CONDUCTIVITY, item number 116864 SENSOR PLATE, DETERGENT SENSOR, CONDUCTIVITY and item number 116875 DETERGENT CONDUCTIVITY, O-RING (the “Accused Sensor Components”).

35. Photographs of Accused Sensor Components sold by CHAMPION are attached as Exhibit G.

36. Photographs of an Accused Sensor assembled using Accused Sensor Components are attached as Exhibit H.

37. Photographs of the housing component of the Accused Sensor are attached as Exhibit I.

38. Photographs of the electrode component of the Accused Sensor are attached as Exhibit J.

39. Photographs of an Accused Sensor with a portion of the housing removed are attached as Exhibit K.

40. As shown in Exhibits G-I and K, the Accused Sensor includes a black housing having a barbed line connector boss at each end of the housing, and a passage that runs through the housing such that chemical can flow along the passage and through the housing.

41. As shown in Exhibits G-I, in the Accused Sensor, a sidewall of the housing includes first and second recessed seating areas shaped to receive both o-rings and plate electrodes, where the first seating area includes a first opening that communicates with the through passage of the housing and the second seating area includes a second opening that communicates with the through passage of the housing.

42. As shown in Exhibits G-I, in the Accused Sensor, both a first o-ring and a first electrode are mounted on the housing at the first seating area aligned with the first opening, and both a second o-ring and a second electrode are mounted on the housing at the second seating area aligned with the second opening.

43. As shown in Exhibits G, H, J and K, in the Accused Sensor, the first electrode is of a plate configuration with a unitary depression that extends inward through both the first o-ring and the first opening and into the through passage such that an inwardly facing surface of the unitary depression can contact chemical flowing through the passage.

44. As shown in Exhibits G, H, J and K, in the Accused Sensor, the second electrode is of a plate configuration with a unitary depression that extends inward through both the second o-ring and the second opening and into the through passage such that an inwardly facing surface of the unitary depression can contact chemical flowing through the passage.

45. As shown in Exhibit D, CHAMPION incorporates the Accused Sensor into a chemical feed line of its warewash machines in order to detect chemical in the feed line.

46. The First Accused 5000 Model Machine incorporates the ITW FEG Sensor into a chemical feed line of the machine with the electrodes of the ITW FEG Sensor connected in a chemical detection circuit.

47. The First Accused 5000 Model Machine includes a control system that is designed to carry out a method of operation that involves applying a periodic signal to the chemical detection circuit, where an output signal of the chemical detection circuit varies according to an impedance between the plate depressions along the through passage of the ITW FEG Sensor, and evaluating the output signal of the chemical detection circuit to determine the presence or absence of chemical in the through passage of the ITW FEG Sensor.

48. CHAMPION tested or operated the First Accused 5000 Model Machines and therefore directly carried out the method of operation per paragraph 47 above.

49. CHAMPION's testing or operation of the First Accused 5000 Model Machines enabled CHAMPION to sell those machines to MRCC.

50. MRCC's operation of the First Accused 5000 Model Machines causes MRCC to directly carry out the method of operation per paragraph 47 above.

51. CHAMPION would not have been able to timely meet the technical requirements of MRCC without designing the First Accused 5000 Model Machines to carry out the method of operation per paragraph 47 above.

52. The Second Accused 5000 Model Machine and the Accused 6000 Model Machines incorporate the Accused Sensor into a chemical feed line of the machine with the electrodes of the Accused Sensor connected in a chemical detection circuit.

53. The Second Accused 5000 Model Machine and the Accused 6000 Model Machines include control systems that are designed to carry out a method of operation that involves applying a periodic signal to the chemical detection circuit, where an output signal of the chemical detection circuit varies according to an impedance between the plate depressions along the through passage of the Accused Sensor, and evaluating the output signal of the chemical detection circuit to determine the presence or absence of chemical in the through passage of the Accused Sensor.

54. CHAMPION tested or operated the Second Accused 5000 Model Machines and the Accused 6000 Model Machines and therefore directly carried out the method of operation per paragraph 53 above.

55. CHAMPION's testing or operation of the Second Accused 5000 Model Machines and the Accused 6000 Model Machines enabled CHAMPION to sell those machines to MRCC or other customers.

56. MRCC's, or other customer's, operation of the Second Accused 5000 Model Machines and the Accused 6000 Model Machines caused MRCC, or the other customers, to directly carry out the method of operation per paragraph 53 above.

57. Allen Hasken ("Hasken") is employed by CHAMPION as Vice President Of New Business & Product Development.

58. Hasken was previously employed by ITW FEG as Product Line Manager for Warewash.

59. As a result of his employment by ITW FEG, Hasken is aware of (a) ITW FEG's history of being an innovator of technologies in the warewash machine field and (b) ITW FEG's practice of utilizing patents to protect those innovations.

60. Based upon prior litigation, CHAMPION was aware that patents ITW FEG innovations could be held by PREMARK.

61. CHAMPION failed to conduct an adequate patent search to determine whether the ITW FEG Sensor, or the use of ITW FEG Sensor, was protected by one or more patents.

62. The similarities between ITW FEG's commercial version of the patented chemical sensor shown in Exhibit B and the CHAMPION Accused Sensor shown in Exhibit H are not coincidental.

63. Rather than innovate on its own, CHAMPION chose to copy the ITW FEG Sensor in order to produce its own chemical sensor, in violation of PREMARK's patent rights.

**CLAIM I: DIRECT INFRINGEMENT OF THE '941 PATENT (35 U.S.C. §271(a))**

64. PREMARK, ITW and ITW FEG repeat and reassert the allegations of paragraphs 1 through 63 as if set forth at length herein.

65. As shown in the infringement chart set forth in Exhibit L, the Accused Sensor infringes claims 1-3 and 7-8 of the '941 Patent, and the Second Accused 5000 Model Machines and the Accused 6000 Model Machines infringe claims 4 and 5 of the '941 Patent.

66. The First Accused 5000 Model Machines infringe claims 4 and 5 of the '941 Patent.

67. CHAMPION directly infringes at least claims 1-5 and 7-8 of the '941 Patent, in violation of 35 U.S.C. §271(a), by manufacturing, using, selling and offering to sell the First Accused 5000 Model Machines, the Second Accused 5000 Model Machines, the Accused 6000 Model Machines and the Accused Sensor.

68. CHAMPION should have known of the existence of the '941 Patent as a result of Hasken's knowledge of ITW FEG's patent protection program. CHAMPION was willfully blind to the existence of the '941 Patent and the likely infringement of the '941 Patent.

69. CHAMPION intentionally copied the patented ITW FEG chemical sensor.

70. The infringement of the '941 Patent by CHAMPION is willful due to (a) CHAMPION's willful blindness to the existence of the '941 Patent and (b) CHAMPION's acts in copying the design of the ITW FEG chemical sensor.

71. The infringement of the '941 Patent by CHAMPION, as described above, is causing irreparable damage to PREMARK, ITW and ITW FEG and will continue to cause irreparable damage to PREMARK, ITW and ITW FEG unless CHAMPION is enjoined by this Court.

**CLAIM II: DIRECT INFRINGEMENT OF THE '596 PATENT (35 U.S.C. §271(a))**

72. PREMARK, ITW and ITW FEG repeat and reassert the allegations of paragraphs 1 through 71 as if set forth at length herein.

73. Operation of the First Accused 5000 Model Machines, the Second Accused 5000 Model Machines and the Accused 6000 Model Machines causes the method of at least claims 1, 2, 7, 8 and 13 of the '596 Patent to be carried out.

74. Champion directly infringed at least claims 1, 2, 7, 8 and 13 of the '596 Patent, in violation of 35 U.S.C. §271(a), by testing or operating the First Accused 5000 Model Machines, the Second Accused 5000 Model Machines and the Accused 6000 Model Machines.

75. CHAMPION should have known of the existence of the '596 Patent as a result of Hasken's knowledge of ITW FEG's patent protection program and CHAMPION's knowledge of PREMARK as a likely holder of ITW FEG patents. CHAMPION was willfully blind to the existence of the '596 Patent and the likely infringement of the '596 Patent.

76. The infringement of the '596 Patent by CHAMPION is willful due to (a) CHAMPION's willful blindness to the existence of the '596 Patent and/or (b) CHAMPION's acts in copying the design of the ITW FEG chemical sensor.

77. The infringement of the '596 Patent by CHAMPION, as described above, is causing irreparable damage to PREMARK, ITW and ITW FEG and will continue to cause irreparable damage to PREMARK, ITW and ITW FEG unless CHAMPION is enjoined by this Court.

**CLAIM III: INDIRECT INFRINGEMENT OF THE '596 PATENT (35 U.S.C. §271(b))**

78. PREMARK, ITW and ITW FEG repeat and reassert the allegations of paragraphs 1 through 77 as if set forth at length herein.

79. Operation of the First Accused 5000 Model Machines the Second Accused 5000 Model Machines and the Accused 6000 Model Machines causes the method of at least claims 1, 2, 7, 8 and 13 of the '596 Patent to be carried out.

80. MRCC, and other customers of Champion, directly infringe at least claims 1, 2, 7, 8 and 13 of the '596 Patent, in violation of 35 U.S.C. §271(a), by operating the First Accused 5000 Model Machines, the Second Accused 5000 Model Machines and the Accused 6000 Model Machines.

81. CHAMPION should have known of the existence of the '596 Patent as a result of Hasken's knowledge of ITW FEG's patent protection program and CHAMPION's knowledge of PREMARK as a likely holder of ITW FEG patents. CHAMPION was willfully blind to the existence of the '596 Patent and the likely infringement of the '596 Patent.

82. By selling MRCC, and other customers of CHAMPION, machines that were specifically designed to carry out the claimed methods of the '596 Patent, and by being willfully blind to the existence of the '596 Patent, CHAMPION induced MRCC, and other customers of CHAMPION, to directly infringe the '596 Patent and, therefore, CHAMPION indirectly infringed the '596 Patent under 35 U.S.C. § 271(b).

83. The infringement of the '596 Patent by CHAMPION is willful due to (a) CHAMPION's willful blindness to the existence of the '596 Patent and/or (b) CHAMPION's acts in copying the design of the ITW FEG chemical sensor.

84. The infringement of the '596 Patent by CHAMPION, as described above, is causing irreparable damage to PREMARK, ITW and ITW FEG and will continue to cause irreparable damage to PREMARK, ITW and ITW FEG unless CHAMPION is enjoined by this Court.

**PRAYER FOR RELIEF**

WHEREFORE, PREMARK, ITW and ITW FEG pray for judgment against CHAMPION as follows:

- (1) That CHAMPION has infringed the '941 Patent under 35 U.S.C. §271(a).
- (2) Issuance of a permanent injunction pursuant to 35 U.S.C. §283 enjoining further acts of infringement of the '941 Patent.
- (3) That CHAMPION has infringed the '596 Patent under 35 U.S.C. §271(a).
- (4) That CHAMPION has infringed the '596 Patent under 35 U.S.C. §271(b).
- (5) Issuance of a permanent injunction pursuant to 35 U.S.C. §283 enjoining further acts of infringement of the '596 Patent.
- (6) An accounting of CHAMPION's sales and profits in connection with sales of the infringing products.
- (7) An award of damages adequate to compensate for infringement, together with interest and costs in accordance with 35 U.S.C. §284 and 35 U.S.C. §287.
- (8) An award of triple damages pursuant to 35 U.S.C. §284.
- (9) An award of pre-judgment and post-judgment interest.

(10) Declaration of this case as exceptional and an award of attorney fees pursuant to 35 U.S.C. §285.

(11) An award of such other and further relief as the Court may deem just and proper.

**DEMAND FOR JURY TRIAL**

PREMARK, ITW and ITW FEG demand a jury trial of all issues raised by the Complaint which are triable of right by a jury.

Respectfully submitted,

//S// Lance A. Lawson

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