

**IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF OHIO**

**INTELLIGENT ASSEMBLY, LLC,**

Plaintiff,

v.

**INGERSOLL-RAND COMPANY,**

Defendant,

and

**INGERSOLL-RAND INDUSTRIAL U.S.,  
INC,**

New-Party Defendant.

Civil Action No.: 1:21-cv-00516-TSB

**TRIAL BY JURY DEMANDED**

**FIRST AMENDED COMPLAINT ADDING NEW-PARTY DEFENDANT**

Now comes, Plaintiff, Intelligent Assembly LLC (“Plaintiff” or “Intelligent Assembly”), by and through undersigned counsel, and respectfully alleges, states, and prays as follows:

**NATURE OF THE ACTION**

1. This is an action for patent infringement under the Patent Laws of the United States, Title 35 United States Code (“U.S.C.”) to prevent and enjoin Defendant Ingersoll-Rand Company (hereinafter “IRC”) and Ingersoll-Rand Industrial U.S., Inc. (hereinafter “IRI” or collectively “Defendants”), from infringing and profiting, in an illegal and unauthorized manner, and without authorization and/or consent from Plaintiff from U.S. Patent No 6,553,321 (“the ‘321 Patent” or the “Patent-in-Suit”), which is attached hereto as Exhibit A and incorporated herein by reference, and pursuant to 35 U.S.C. §271, and to recover damages, attorney’s fees, and costs.

**THE PARTIES**

2. Plaintiff is a Texas limited liability company with its principal place of business at 312 West 8<sup>th</sup> Street, Dallas, Texas.

3. Upon information and belief, New-Party Defendant IRI, is a corporation organized under the laws of Delaware, having a principal address at 800 Beaty St., Davidson, NC 28036 and also operating a physical location in this district at 10300 Springfield Pike, Cincinnati, Ohio 45215. Upon information and belief, New-Party Defendant IRI may be served with process c/o The Corporation Trust Company, Corporation Trust Center, 1209 Orange St., Wilmington, DE 19801.

4. Upon information and belief, Defendants are related entities or New-Party Defendant IRI is a successor entity of Defendant IRC.

### **JURISDICTION AND VENUE**

5. This is an action for patent infringement in violation of the Patent Act of the United States, 35 U.S.C. §§1 *et seq.*

6. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§1331 and 1338(a).

7. This Court has personal jurisdiction over Defendants by virtue of their systematic and continuous contacts with this jurisdiction and its residence in this District, as well as because of the injury to Plaintiff, and the cause of action Plaintiff has risen in this District, as alleged herein.

8. Defendants are subject to this Court's specific and general personal jurisdiction pursuant to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in this forum state and in this judicial District; and (iii) being physically located in this District.

9. Venue is proper in this judicial district pursuant to 28 U.S.C. §1400(b) because Defendants reside in this District under the Supreme Court's opinion in *TC Heartland v. Kraft*

*Foods Group Brands LLC*, 137 S. Ct. 1514 (2017) through their regular and established place of business in this District.

### **FACTUAL ALLEGATIONS**

10. On April 22, 2003, the United States Patent and Trademark Office (“USPTO”) duly and legally issued the ‘321 Patent, entitled “Intelligent Assembly and Methods” after a full and fair examination. The ‘321 Patent is attached hereto as Exhibit A and incorporated herein as if fully rewritten.

11. Plaintiff is presently the owner of the ‘321 Patent, having received all right, title and interest in and to the ‘321 Patent from the previous assignee of record. Plaintiff possesses all rights of recovery under the ‘321 Patent, including the exclusive right to recover for past infringement.

12. To the extent required, Plaintiff has complied with all marking requirements under 35 U.S.C. § 287.

13. As identified in the ‘321 Patent, prior art systems and methods had technological faults. Ex. A at Col 1:11-42.

14. More particularly, the ‘321 Patent identifies that the prior art indicated that manufacturing systems are also becoming more integrated. Workers involved in the manufacturing process, by controlling and operating the machinery on the shop floor, are gaining greater efficiencies through “smarter” shop floor control systems. Ex. A at Col. 1:33-35.

15. To address shortcomings of the prior art, the ‘321 Patent disclosed exemplary embodiments of intelligent assembly methods and systems. Ex. A at Col. 1:48-2:54.

16. The ‘321 Patent identifies a power tool device that enables a user to select a value from a predetermined list of values stored in a memory of the power tool device. Ex. A, at Col.

9:8-11. The value selected by the user via the user input designates a target value for a characteristic signature of the power tool device when performing an action. Ex. A, at Col. 9:16-18. The value is communicated to a processor of the power tool device. Ex. A, at Col. 9:18-22. The power tool device includes one or more sensors that sense a signature characteristic of the power tool device during an action. Ex. A, at Col. 9:22-28. The processor receives the signature characteristic sensed by the sensor(s) and compares its value to the target value. Ex. A, at Col. 9:28-32. If the signature characteristic is within an acceptable range of the target value, the determine if the action is successful. Ex. A, at Col. 9:32-35.

17. One invention claimed in the ‘321 Patent is a method of intelligent assembly.

18. Claim 1 of the ‘321 Patent states:

“1. A method for intelligent assembly, the method comprising the steps of:  
inserting a fastener into an assembly;  
sensing a signature characteristic of the insertion of the fastener;  
evaluating the insertion of the fastener using the sensed signature characteristic;  
wherein the evaluating step comprises:  
counting a number of a plurality of insertions for at least one of an assembly process step and an entire assembly process;  
comparing the counted number of a plurality of insertions with a desired number of plurality of insertions; and  
determining whether the desired number of a plurality of insertions is made.” Ex. A, at Col.10:5-21.

19. The specific method steps of Claim 1, as combined, accomplish the desired result of intelligent assembly. See generally Ex. A, at Col.10:5-21.

20. These specific elements of Claim 1 of the ‘321 Patent were an unconventional arrangement of elements because the prior art methodologies would simply use distribute information throughout the factory to facilitate the manufacturing of products. Ex. A, Col. 1:39-

42. Claim 1 of the '321 Patent was able to unconventionally generate a method for intelligent assembly. *Cellspin Soft, Inc. v. FitBit, Inc.*, 927 F.3d 1306 (Fed. Cir. 2019).

21. Further, regarding the specific non-conventional and non-generic arrangements of known, conventional pieces to overcome an existing problem, the method of Claim 1 in the '321 Patent provides a method of intelligent assembly that would not preempt all ways of manufacturing because the evaluating step is based on the “counting a number of a plurality of insertions for at least one of an assembly process step and an entire assembly process; comparing the counted number of a plurality of insertions with a desired number of plurality of insertions; and determining whether the desired number of a plurality of insertions is made”, any of which could be removed or performed differently to permit a method of intelligent assembly in a different way. *Bascom Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016); See also *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014).

22. Based on the allegations, it must be accepted as true at this stage, that Claim 1 of the '321 Patent recites a specific, plausibly inventive way of intelligent assembly rather than the general idea of tool automation. *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1319 (Fed. Cir. 2019), *cert. denied sub nom. Garmin USA, Inc. v. Cellspin Soft, Inc.*, 140 S. Ct. 907, 205 L. Ed. 2d 459 (2020).

23. Alternatively, there is at least a question of fact that must survive the pleading stage as to whether these specific elements of Claim 1 of the '321 Patent were an unconventional arrangement of elements. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121 (Fed. Cir. 2018) See also *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018), *cert. denied*, 140 S. Ct. 911, 205 L. Ed. 2d 454 (2020).

24. Defendants commercialize, inter alia, products that that perform all the steps recited in at least one claim of the '321 Patent. More particularly, Defendants commercialize, inter alia, products that perform all the steps recited in Claim 1 of the '321 Patent. Specifically, Defendants make, use, sell, offer for sale, or import a product that encompasses that which is covered by Claim 1 of the '321 Patent.

**DEFENDANT'S PRODUCT(S)**

25. Defendants offer for sale and sells products, such as the “QXX Cordless Precision Screwdriver” and “Process Communication Module (PCM) with Insight Control Software” (collectively the “Accused Products”)<sup>1</sup>. A non-limiting and exemplary claim chart comparing the Accused Products to Claim 1 of the '321 Patent is attached hereto as Exhibit B and is incorporated herein as if fully rewritten.

26. Other products that are Accused Products include:

- a. QXN Cordless Angle Wrench;
- b. QXN Cordless High Torque Angle Wrench;
- c. QXC Cordless Angle Wrench;
- d. QXC Cordless High Torque Angle Wrench;
- e. QXX Cordless Angle Wrench;
- f. QXX High Torque Angle Wrench;
- g. QXC Cordless Precision Screwdriver;
- h. QXN Cordless Precision Screwdriver;
- i. INSIGHTqcx Cordless Controller;
- j. Ingersoll Rand INSIGHT Connect App;

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<sup>1</sup> The Accused Products are just some of the products provided by Defendant, and Plaintiff's investigation is on-going to additional products to be included as an Accused Product that may be added at a later date.

- k. QE Fixtured Angle;
- l. QE2 Angle;
- m. QE4 Angle;
- n. QE6 Angle;
- o. QE8 Angle;
- p. QM3 Series Fixtured Spindles;
- q. QE Fixtured Inline;
- r. QM5 Series Fixtured Spindles;
- s. QM7 Series Fixtured Spindles;
- t. QM9 Series Fixtured Spindles;
- u. QE2 Inline;
- v. QE4 Inline;
- w. QE6 Inline;
- x. QE2 Motors;
- y. QE2 Pistol;
- z. QE4 Pistol;
- aa. QE4 Push-to-start;
- bb. INSIGHTqc Controller;
- cc. IC12D Insight Display Controller;
- dd. IC12M Insight Modular Controller; and
- ee. Insight Control Software with one or more above controllers.

27. As recited in Claim 1, the Accused Products practice or enable the practice of inserting a fastener into an assembly. See Ex. B.

28. As recited in one step of Claim 1, the Accused Products practice sensing a signature characteristic of the insertion of the fastener. See Ex. B.

29. As recited in another step of Claim 1, the Accused Product practice evaluating the insertion of the fastener using the sensed signature characteristic. See Ex. B.

30. As recited in another step of Claim 1, the Accused Product practice counting a number of a plurality of insertions for at least one of an assembly process step and an entire assembly process. See Ex. B.

31. As recited in another step of Claim 1, the Accused Product practice comparing the counted number of a plurality of insertions with a desired number of plurality of insertions. See Ex. B.

32. As recited in another step of Claim 1, the Accused Product practice determining whether the desired number of a plurality of insertions is made. See Ex. B.

33. The elements described in the preceding paragraphs are covered by at least Claim 1 of the '321 Patent. Thus, Defendants' manufacture, use, sale, offer for sale, and/or import of the Accused Products is enabled by the method described in the '321 Patent.

#### **INFRINGEMENT OF THE PATENT-IN-SUIT**

34. Plaintiff realleges and incorporates by reference all of the allegations set forth in the preceding paragraphs

35. In violation of 35 U.S.C. § 271, Defendants are now, and have been directly infringing the '321 Patent.

36. Defendants have had knowledge of infringement of the '321 Patent at least as of the service of the present Complaint.



37. **Direct Infringement.** Defendants have directly infringed and continue to directly infringe at least one claim of the '321 Patent by making, using, at least through internal testing or otherwise, offering to sell, selling and/or importing, without limitation, the Accused Products without authority in the United States, and will continue to do so unless enjoined by this Court. As a direct and proximate result of Defendants' direct infringement of the '321 Patent, Plaintiff has been and continues to be damaged.

38. **Induced Infringement.** Defendants have induced others to infringe the '321 Patent by encouraging infringement, knowing that the acts Defendants induced constituted patent infringement, and its encouraging acts actually resulted in direct patent infringement either literally or under the doctrine of equivalents.

39. **Contributory Infringement.** Defendants actively, knowingly, and intentionally have been and continue to materially contribute to their own customers' infringement of the '321 Patent, literally or by the doctrine of equivalents, by selling the Accused Products to their customers for use in end-user products in a manner that infringes one or more claims of the '321 Patent. Moreover, the Accused Products are not a staple article of commerce suitable for substantial non-infringing use.

40. By engaging in the conduct described herein, Defendants have injured Plaintiff and are thus liable for infringement of the '321 Patent, pursuant to 35 U.S.C. § 271.

41. Defendants have committed these acts of infringement without license or authorization.

42. As a result of Defendants' infringement of the '321 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendants' past infringement, together with interests and costs.

43. Plaintiff will continue to suffer damages in the future unless Defendants' infringing activities are enjoined by this Court. As such, Plaintiff is entitled to compensation for any continuing and/or future infringement up until the date that Defendants are finally and permanently enjoined from further infringement.

44. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim charts that it provides with this Complaint. The claim chart depicted in Exhibit B is intended to satisfy the notice requirements of Rule 8(a)(2) of the Federal Rule of Civil Procedure and does not represent Plaintiff's preliminary or final infringement contentions or preliminary or final claim construction positions.

**DEMAND FOR JURY TRIAL**

45. Plaintiff demands a trial by jury of any and all causes of action.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff prays for the following relief:

a. That Defendants be adjudged to have directly infringed the '321 Patent either literally or under the doctrine of equivalents;

b. An accounting of all infringing sales and damages including, but not limited to, those sales and damages not presented at trial;

c. That Defendants, its officers, directors, agents, servants, employees, attorneys, affiliates, divisions, branches, parents, and those persons in active concert or participation with any of them, be permanently restrained and enjoined from directly infringing the '321 Patent;

d. An award of damages pursuant to 35 U.S.C. §284 sufficient to compensate Plaintiff for the Defendants' past infringement and any continuing or future infringement up until the date that

Defendants are finally and permanently enjoined from further infringement, including compensatory damages;

e. An assessment of pre-judgment and post-judgment interest and costs against Defendants, together with an award of such interest and costs, in accordance with 35 U.S.C. §284;

f. That Defendants be directed to pay enhanced damages, including Plaintiff's attorneys' fees incurred in connection with this lawsuit pursuant to 35 U.S.C. §285; and

g. That Plaintiff be granted such other and further relief as this Court may deem just and proper.

Dated: September 15, 2021

Respectfully submitted,

SAND, SEBOLT & WERNOW CO., LPA

/s/ Howard L. Wernow

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ATTORNEYS FOR PLAINTIFF

### **CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and correct copy has been electronically filed using the CM/ECF filing system, which automatically sends email notifications to all counsel of record and which will permit viewing and downloading of same from the CM/ECF system on September 15, 2021.

/s/ Howard L. Wernow

Howard L. Wernow