

IN THE UNITED STATES DISTRICT COURT FOR
THE DISTRICT OF MARYLAND, NORTHERN DIVISION

FICEP CORPORATION,

*

Plaintiff,

*

v.

*

CIVIL NO.: WDQ-13-0429

VOORTMAN USA CORP,

*

Defendant.

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* * * * *

MEMORANDUM OPINION

Ficep Corporation ("Ficep") sued Voortman USA Corp. ("Voortman") under 35 U.S.C. § 271 for infringement of patent 7,974,719 (the "'719 patent"). ECF No. 1. Voortman counterclaimed for declarations of invalidity and non-infringement of the '719 patent. ECF No. 19. On June 26, 2014, the Court held a claim construction hearing. For the following reasons, the '719 patent claims will be construed as discussed herein.

I. Background

A. The Parties and the Patent

Ficep is a "supplier of structural steel and plate fabrication and processing systems." ECF No. 1 ¶ 5. It owns all rights, title, and interest in the '719 patent, which "relates to systems and methods for the manufacture of construction components, such as steel beams." *Id.* Voortman's

layout marking system products, coping products, drilling products, and plate processing products allegedly infringe the '719 patent. *Id.* ¶ 9.

The '719 patent is titled "Method and an Apparatus for Automatic Manufacture of an Object with Multiple Intersecting Components." ECF No. 34-1 at 4. The patent relates to manufacturing systems in which Computer-Aided Design ("CAD") programs are used to design three-dimensional models of physical objects which are then transmitted to manufacturing machines for manufacture of the objects or object components on an assembly line. *See id.* The patent specification discusses how this manufacturing process "typically" requires a human operator to "program manually the manufacturing machines . . . based on the [CAD] display . . . so that the structure or device may be manufactured." *Id.* col.1 ll.25-36. "[A] problem arises" in this process "when the specialized human operator, capable of inputting data into the manufacturing machine, is unavailable" or "err[s] when providing instructions to automated assembly line equipment." *Id.* col.1 ll.41-55. The patent purports to resolve this problem and also to incorporate "design parameters related to intersections and points of contact or connection between components." *Id.*

The method taught by the patent aims to increase efficiency and reduce costs in systems "related to automatic manufacture of

an object with multiple intersecting components." *Id.* col.1 11.65-66, col.2 11.1-2. The method uses a component called a programmable logic controller ("PLC"). *Id.* col.2 11.11-12. The PLC receives "a design model of the object," from which it extracts and identifies "a plurality of intersection and/or manufacturing parameters that define a plurality of intersections of the components." *See id.* col.2 11.11-18. The parameters and dimensions are then transmitted from the PLC to the manufacturing machines. *Id.* col.2 11.18-22. Finally, the manufacturing machines manufacture the components "based at least in part on the transmitted dimensions [and] parameters."¹ *Id.* col.2 11.22-25.

The patent has 14 claims, three of which are independent claims. *Id.* at 7-8, col.7-10. The first independent claim (claim 1) describes the steps of "[a] method for automatic manufacture of an object," as discussed above. *Id.* at 7, col.7 11.49-66, col.8 11.1-8. The second independent claim (claim 7) and third independent claim (claim 14) describe an apparatus and article of manufacture, respectively, for "automatic manufacture of an object." *Id.* at 7-8, col.8 11.25-55, col.9 11.6-17, col.10 11.1-16.

¹ The patent specification also describes an apparatus and article of manufacture that perform the functions of this automatic manufacturing method. ECF No. 34-1 at 4-5, col.2 11.26-67, col.3 11.1-3.

Ficep² initially applied to the Patent and Trademark Office ("PTO") for the '719 patent on November 26, 2008.³ ECF No. 33-2 at 2-3. On September 17, 2010, by Office Action, the PTO rejected all of the '719 patent claims, in pertinent part, because they were anticipated by patent 4,998,206 authored by Jones *et al.* ("Jones").⁴ ECF No. 33-2 at 146, 150. On February 17, 2011, in response to this Office Action, Ficep proposed amendments to the title and claims of the '719 patent. *Id.* at 164-71. Ficep also made several arguments about why the '719 patent was not anticipated by Jones. For example, Ficep argued that Jones was directed to manufacturing individual or separate components, while the '719 patent provided for "a design model of an entire object having multiple components in contact with one another at one or more intersection points." *Id.* at 173-74. Ficep also argued that its system--unlike that in Jones--"seeks

² Although the patent application was not filed in Ficep's name, the Court will follow the parties' example and refer to the applicant as Ficep. See ECF No. 39 at 8-9.

³ On June 6, 2007, Ficep applied for the '719 patent in the International Bureau of the World Intellectual Property Organization in Geneva, Switzerland, under the Patent Cooperation Treaty. ECF No. 33-2 at 45. On December 13, 2007, the patent was published internationally. *Id.* at 8.

⁴ The '719 patent was rejected under 35 U.S.C. § 102, which currently provides, *inter alia*, that "[a] person shall be entitled to a patent unless . . . the claimed invention was described in a patent issued under section 151 . . . in which the patent or application . . . names another inventor and was effectively filed before the effective filing date of the claimed invention." 35 U.S.C. § 102(a); ECF No. 33-2 at 150.

to eliminate errors made in the process of transferring a CAD generated design into instructions for controlling a manufacturing machine." *Id.* at 177. On the basis of these and other arguments, the PTO allowed the claims. *See id.* at 194-95.

B. Procedural History

On February 7, 2013, Ficep sued Voortman for directly, indirectly, and willfully infringing the '719 patent, in violation of 35 U.S.C. § 271. ECF No. 1. On April 17, 2013, Voortman answered and asserted counterclaims for a declaratory judgment of the invalidity and non-infringement of the '719 patent. ECF No. 19 at 5-8. On May 13, 2013, Ficep answered Voortman's counterclaims. ECF No. 27.

On January 13, 2014, the parties submitted a Joint Claim Construction Statement. ECF No. 32. The same day, Ficep and Voortman submitted their opening claim construction briefs. ECF Nos. 33, 34. On February 27, 2014, Ficep and Voortman filed their responsive claim construction briefs. ECF Nos. 39, 40.

II. Analysis

A. Legal Standard

Claim construction is a question of law, to be determined by the court. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 384 (1996). Claim construction involves "resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims,

for use in the determination of infringement. It is not an obligatory exercise in redundancy." *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997), cert. denied, 522 U.S. 950 (1997). Accordingly, district courts need not "construe every limitation present in a patent's asserted claims." *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008). "[C]ommonplace" terms or terms that "a juror can easily use [] in her infringement fact-finding" without additional instructions from the court do not require construction, "because they are neither unfamiliar to the jury, confusing to the jury, nor affected by the specification⁵ or prosecution history⁶." *Pulse Med. Instruments, Inc. v. Drug Impairment Detection Servs., Inc.*, CIV.A.DKC 07-01388, 2009 WL 6898404, at *2 (D. Md. Mar. 20, 2009) (citing *Bd. of Trs. of Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.*, 528 F. Supp. 2d 967, 976 (N.D. Cal. 2007)). "It is only after the claims have been construed without reference to the accused device that the claims, as so

⁵ The "specification" is "[t]he part of a patent application describing how an invention is made and used, the best mode of operation of the claimed invention, and the inventor's claims." *Black's Law Dictionary* (9th ed. 2009).

⁶ Also termed "file wrapper," the prosecution history is "[t]he complete record of proceedings in the [PTO] from the initial application to the issued patent[;] specif., a patent . . . application together with all documentation, correspondence, and any other record of proceedings before the PTO concerning that application." *Black's Law Dictionary* (9th ed. 2009).

construed, are applied to the accused device to determine infringement." *SRI Int'l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1118 (Fed. Cir. 1985) (*en banc*) (emphasis in original).

The patent's claims "define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (internal quotation marks omitted), *cert. denied*, 546 U.S. 1170 (2006). Thus, when construing a claim, a court should give its words their "ordinary and customary meaning" as would be understood by "a person of ordinary skill in the art in question at the time of the invention." *Id.* at 1313.

Each claim "should be read within the context of the entire patent, including the specification." *Pulse*, 2009 WL 6898404, at *2. The specification "is the single best guide to the meaning of a disputed term" and is "[u]sually . . . dispositive." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). "The specification functions as a dictionary to explain the claimed subject matter and define the terms used in the claims[, but] is to be used only to interpret words or phrases of a patent claim, not to add to, or detract from, the language of the claims." *C.M.L. s.r.l. v. Ineco Indus. Navarra de Equipos y Comercio, S.A.*, 177 F. Supp. 2d 442, 445 (D. Md. 2001) (internal citation omitted). "In some

instances, the ordinary meaning of a claim as understood by a person of skill in the art will be readily apparent from the words themselves and in those situations, general language dictionaries may be of assistance." *Pulse*, 2009 WL 6898404, at *2 (citing *Phillips*, 415 F.3d at 1314).

In addition to the specification, "a court should also consider the patent's prosecution history, if it is in evidence." *Phillips*, 415 F.3d at 1317 (internal quotation marks omitted). "The prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution." *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995), cert. denied, 516 U.S. 987 (1995); see also *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 863 (Fed. Cir. 2004) ("[T]he ordinary and customary meaning of a term does not govern if the intrinsic record contains clear lexicography or disavowal of claim scope"). However, the prosecution history is often less useful than the specification for claim construction, because it "represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, [and] often lacks the clarity of the specification." *Phillips*, 415 F.3d at 1317.

In most cases, an analysis of the intrinsic evidence--the patent specification and prosecution history--"resolves any

ambiguities in a disputed claim term." *Vitronics*, 90 F.3d at 1582-83. Extrinsic evidence--"including expert and inventor testimony, dictionaries, and learned treatises"--"may be helpful to explain scientific principles, the meaning of technical terms, and terms of art that appear in the patent and prosecution history." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (internal quotation marks omitted), *aff'd*, 517 U.S. 370 (1996). Although extrinsic evidence can be useful for claim construction, "it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Phillips*, 415 F.3d at 1319.

B. Claim Construction

The parties assert that they are unable to agree on any construction of claim terms. ECF No. 32 at 1. With respect to every claim for which Voortman proposes a construction, Ficep contends that the plain and ordinary meaning of the claim term is sufficient.⁷ ECF No. 34 at 7.

⁷ Voortman faults Ficep for failing to offer proposed constructions, arguing that the Court has an obligation to construe claim terms and, as a result, "should deem Ficep as having waived its rights to assert construction of any claim term and . . . adopt [Voortman's proposed] constructions." ECF No. 40 at 5-8. However, the Court is not obligated to "add[] to or rephrase[e] the claim language," when the "[c]laims themselves consist of language [that is] already sufficiently clear" and only is required to construe claims as necessary to resolve the parties' dispute. See *Semiconductor Energy Lab.*

1. Construction of Preambles - Disputed Construction 1

The preamble of each independent claim uses the phrase "automatic manufacture of an object."⁸ Voortman argues that the preambles are limiting, and that this phrase "requires that the entire manufacturing process is completed without direct human intervention." ECF No. 33 at 24-25, 40, 45. Ficep contends

Co., Ltd. v. Chi Mei Optoelectronics Corp., No. C 04-04675 MHP, 2006 WL 6130994, at *6 (N.D. Cal. Mar. 27, 2006); *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) ("[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy."); e.g., *Sur. Techs., Inc. v. Entrust Techs., Inc.*, 71 F. Supp. 2d 520, 529 (E.D. Va. 1999) (declining to construe claim term because it was used in the patent in a manner consistent with its plain and ordinary meaning). Further, arguing that a plaintiff has "'waived' the right to offer alternate constructions—has no bearing on the court's ability to determine the proper construction as a matter of law[, because a] court is free to accept either party's proposed construction, or to reject both if both are flawed." *Semiconductor*, 2006 WL 6130994, at *6; see also *infra* note 27.

⁸ The full text of the preambles of the independent claims is:

Claim 1: "A method for automatic manufacture of an object, the method comprising the steps of:"

Claim 7: "An apparatus for automatic manufacture of an object, comprising:"

Claim 14: "An article of manufacture, comprising a program storage medium which has computer-readable program code incorporated therein for the automatic manufacture of an object, wherein the computer-readable program code in the article of manufacture includes:"

ECF No. 34-1 at 7-8, col.7 ll.49-50, col.8 ll.25-26, col.9 ll.7-11. Voortman states that the same arguments it makes for construction of the preamble of claim 1 apply to construction of the preambles of claims 7 and 14. ECF No. 33 at 40, 45.

that the preambles are not limiting, and that Voortman is inappropriately importing limitations from the specification into the claims. See ECF No. 34 at 8-10.

To determine if the preamble is a limitation on a claim, the court must review the entire patent to determine what was actually invented and what the claim was intended to encompass. *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002). Generally, the preamble is limiting if it "recites limitations of the claim, or, if [it] is necessary to give life, meaning, and vitality to the claim." *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999) (internal quotations omitted); see also *Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp.*, 320 F.3d 1339, 1345 (Fed. Cir. 2003) (preamble is limiting when it recites "the essence of the invention without which performance of the recited steps is nothing but an academic exercise").

However, a preamble is not limiting when "a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention." *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997); *Catalina*, 289 F.3d at 809 (The "preamble generally is not limiting when . . . deletion of the preamble phrase does not affect the structure or steps of the claimed invention."). In

such cases, "a preamble usually does not limit the scope of the claim unless the preamble provides antecedents for ensuing claim terms and limits the claim accordingly." *Bard*, 157 F.3d at 1350; *see also Catalina*, 289 F.3d at 808 ("[D]ependence on a particular disputed preamble phrase for antecedent basis . . . indicates a reliance on both the preamble and claim body to define the claimed invention."). Also, "clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art transforms the preamble into a claim limitation because such reliance indicates use of the preamble to define, in part, the claimed invention." *Catalina*, 289 F.3d at 808.

Voortman argues that the prosecution history shows that Ficep distinguished the '719 patent claims from prior art by telling the PTO that the prior art did not suggest an "automatic manufacturing system." ECF No. 33 at 25. Accordingly, Voortman contends, the "automatic manufacture" preamble language now limits all of the '719 patent claims. *Id.* Ficep argues that it did not distinguish prior art "based upon the feature of 'automatic manufacture.'" ECF No. 39 at 9.

The prosecution history shows that Ficep argued several grounds on which the '719 patent was distinguishable from Jones; however, the automated nature of the system as a whole was not one of those grounds. In the prosecution history, Ficep stated

that in the Jones system--unlike the '719 patent--"a human operator typically must program manually manufacturing machines associated with an assembly line," but does not argue that Jones is distinguishable because the whole process in Jones requires manual operation. See ECF No. 33-2 at 176-78. Indeed, Ficep described the system in Jones as "an automated method and apparatus for manufacturing sheet metal parts using workpiece manipulators." See *id.* at 176 (emphasis added).

Also, each of the independent claim preambles in the '719 patent uses the phrase "automatic manufacture of an object" to refer to the entire method, apparatus, or article of manufacture described in the body of the claim. Accordingly, Ficep did not clearly rely on the preambles--which describe the automated nature of the independent claims as a whole--in distinguishing Jones, which relies on manual operation in only one portion of its otherwise-automated system.

Voortman also argues that the preamble is limiting, because it contains the term "manufacture," which is an antecedent basis for the term "manufacturing" in the body of the three independent claims. ECF No. 33 at 26. Ficep asserts that "the feature that Voortman contends should permeate all the claim limitations is [its] interpretation of the word 'automatic'"--not "manufacture"--and the word "automatic" does not appear in the body of any claims. ECF No. 39 at 7.

Voortman does not argue or show how the word "manufacture" as used in the preambles "define[s] or refine[s] the scope of the asserted claims," or provides "context essential to understanding" the meaning of the word "manufacturing" as used in the body of each claim. See *Am. Med. Sys., Inc. v. Biolitec, Inc.*, 618 F.3d 1354, 1359 (Fed. Cir. 2010) (concluding that preamble's use of a "generic term" did not provide an antecedent basis for the term's use in the bodies of the independent claims). Instead, Voortman argues that the preambles should be construed to limit *human intervention*, indicating that the relevant preamble term is "automatic," not "manufacture." See ECF No. 33 at 27-29. Because the word "automatic" is not present in the bodies of the independent claims, the preambles do not provide an antecedent basis for a limiting claim term. See *Bard*, 157 F.3d at 1350 (preamble is limiting when it provides an antecedent basis for claim terms which then "*limits the claim accordingly*") (emphasis added).

Finally, Voortman contends that the preamble includes the "'essence of the invention,'" because "[e]very section of the '719 patent describes 'automatic manufacture' as a key feature of 'the invention.'" ECF No. 33 at 25. Ficep asserts that the preambles merely state the purpose or intended use for the invention. See ECF No. 39 at 5-6.

For each independent claim, the body of the claim recites the entire method or structure of the claim. The phrase "automatic manufacture of an object" is not a step of the method or part of the structure of the invention,⁹ and, accordingly, deletion of the preambles would not affect the structure of the invention or the steps of method. See *Catalina*, 289 F.3d at 809; see also *Am. Med. Sys.*, 618 F.3d at 1360 (preambles were not limiting, because, *inter alia*, "the bodies of the asserted method claims contain all the steps necessary to practice the invention"). The phrase merely describes the intended use or purpose of the inventions--"for automatic manufacture of an object." See ECF No. 34-1 at 7-8 (emphasis added); *Dror*, 112 F.3d at 478; see also *Am. Med. Sys.*, 618 F.3d at 1359 ("[T]he preamble has no separate limiting effect if, for example, '[it] merely gives a descriptive name to the set of limitations in the body of the claim that completely set forth the invention.'" (quoting *IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1434-35 (Fed. Cir. 2000))).

⁹ Further strengthening the Court's conclusion that the preambles are not limiting is that Claim 7 is an apparatus claim. "[P]reambles describing the use of an invention generally do not limit . . . apparatus or composition claims[, because their patentability] depends on the claimed structure, not on the use or purpose of that structure." *Catalina*, 289 F.3d at 809; see also *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1468 (Fed. Cir. 1990) ("[A]pparatus claims cover what a device is, not what a device does.") (emphasis in original). An "inventor of a machine is entitled to the benefit of all the uses to which it can be put." *Catalina*, 289 F.3d at 809.

The patent specification confirms that "automatic manufacture of an object" describes the intended use or purpose of the overall invention rather than a limit on the claim. Although the phrase appears several times in the specification, it is consistently used to refer to the overall method, apparatus, or article of manufacture described in the claims. For example, the abstract uses the phrase as follows: "Systems and methods for the automatic manufacture of a multiple component object with intersecting components based on a standard design model of the object." ECF No. 34-1 at 1. Moreover, the specification states that, although the entire process can be performed automatically, parts of it may also be performed manually, indicating that the preamble reference to "automatic" was not intended to limit the claims. *See, e.g., id.* at 7, col.6 ll.49-57.

Accordingly, the preambles are not limiting, and construction of the preambles is unnecessary.¹⁰

¹⁰ "It is well settled that if the body of the claim sets out the complete invention, and the preamble is not necessary to give 'life, meaning and vitality' to the claim, then the preamble is of no significance to claim construction because it cannot be said to constitute or explain a claim limitation." *Schumer v. Lab. Computer Sys., Inc.*, 308 F.3d 1304, 1310 (Fed. Cir. 2002) (quoting *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1373-74, 58 USPQ2d 1508, 1512 (Fed. Cir. 2001) (internal quotations omitted)); *Select Retrieval LLC v. Amerimark Direct LLC*, 1:11-CV-00812-RGA, 2014 WL 1092387, at *3 (D. Del. Mar. 14, 2014) ("[A]s the preamble does not limit the claim, its construction is not necessary").

2. Construction of Claim Terms

a. Claim 1: Disputed Construction 2 - "design model of an object"

Voortman contends that the claim term "design model of an object" should be construed as defined in the specification and to clarify that the diagram is in the form of an electronic file, not a paper diagram. See ECF No. 33 at 29-31. Voortman proposes the following construction: "[a] detailed structural diagram of an object, in the form of an electronic file, which includes all of the design specifications and tolerances needed to allow assembly of the object within an acceptable tolerance range." *Id.* at 29. Ficep agrees that the "design model" is in the form of an electronic file,¹¹ but argues that Voortman is otherwise attempting to impermissibly "read[]-into the claims features that appear only in the patent specification." ECF No. 39 at 17. Ficep also contends "that this language relates to 'a general embodiment' only." ECF No. 34 at 14.

When "a patent applicant has elected to be a lexicographer by providing an explicit definition in the specification for a

¹¹ This construction of "design model" is supported by the language of the claims, *see, e.g.*, ECF No. 34-1 at 7, col.7 ll.49-59 ("creating, at a computing device, a design model of an object having multiple individual components . . . storing, at a database unit, the design model"), and by the specification, *see, e.g.*, *id.* at 5, col.3 ll.47-50 ("Generally, the three-dimensional design model of the object is received *electronically* by any medium and can be received via wired or wireless communication.") (emphasis added).

claim term[,] [that] definition . . . control[s]."¹² *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998). The lexicography must appear in the specification "with reasonable clarity, deliberateness, and precision" to affect the claim. *Id.* (quoting *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994) (internal quotations omitted)). The location of a statement within the specification "can signal the likelihood that the statement will support a limiting definition of a claim term." *Bard*, 388 F.3d at 864. "Statements that describe the invention as a whole, rather than statements that describe only preferred embodiments, are more likely to support a limiting definition of a claim term." *Id.*

The language on which Voortman relies to define "design model of an object" is found in the section of the patent entitled "Detailed Description of Preferred Embodiments." ECF No. 34-1 at 5. It states:

In a general embodiment, the computer . . . contains a design model, such as a [CAD] model. The design model is generally a detailed structural diagram which includes all of the specifications and tolerances

¹² Although a claim's words "are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history," there are two exceptions: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

needed to allow assembly of the object within an acceptable tolerance range.

Id. at 6, col.6 ll.21-26. Although these statements define "design model of an object" with reasonable clarity and precision, the location of the statements in the preferred embodiments section, and the use of the modifying word "generally," indicate that this definition is not intended to apply to the overall invention, only certain embodiments.¹³ See *Swimways Corp. v. Overbreak, LLC*, 354 F. Supp. 2d 637, 645-46 (E.D. Va. 2005) (rejecting claim definitions that appeared "in sections directed to related art or specific embodiments," because they were "unlikely to have been intended as 'global' and limiting definitions") (citing *Bard*, 388 F.3d at 864).¹⁴ Accordingly, adoption of Voortman's construction--with the

¹³ Voortman argues that other portions of the specification support its proposed construction as well. See ECF No. 33 at 31. Although these excerpts use some of the words from Voortman's proposed construction, they do not define "with reasonable clarity, deliberateness, and precision" this term in the manner that Voortman argues it should be defined. See, e.g., ECF No. 34-1 at 4, col 1. ll.20-25 ("Generally, a [CAD] model includes design specifications related to the structure or device") (emphasis added).

¹⁴ See also *Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1342 (Fed. Cir. 2010) ("[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.") (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004) (internal quotations omitted)).

exception of the "electronic file" limitation--would inappropriately import limitations from the specification into the claims. See *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1340 (Fed. Cir. 2001) ("[R]eading a limitation from the written description into the claim" is a "cardinal sin[]" of patent claim construction.).

Thus, the Court will adopt the following construction:

Claim Language	Court's Construction
2. "design model of an object"	"design model of an object, in the form of an electronic file"

b. Claim 1: Disputed Constructions 3-8

i. at the programmable logic controller

Voortman contends that the phrase "at the programmable logic controller" should be added to several claim terms,¹⁵ because it is required by the claim language and specification, and because "the prosecution history also confirms that" certain steps are performed at the PLC. See, e.g., ECF No. 33 at 35-36.

¹⁵ These claim 1 terms are:

"extracting from the design model a plurality of component dimensions defining a plurality of components of the object"

"identifying a plurality of intersection and manufacturing parameters which define in part the intersection of the two components"

"extracting from the design model the intersection and manufacturing parameters"

Ficep argues that "Claim 1 . . . does not mandate any particular order of steps," and thus the claim language does not require this addition. ECF No. 39 at 18. It also argues that Voortman is "violat[ing] the fundamental princip[le] that features found in the specification and prosecution history may not be read-into the claims." *Id.*

Among the arguments Ficep made to the PTO to distinguish the '719 patent from Jones, Ficep stated that Jones "does not include componentry (such as a [PLC]) that identifies and extracts intersection information or parameters from a design model of an object having multiple components in contact with one another at one or more intersection points." ECF No. 33-2 at 174. This statement does not clearly distinguish Jones from the '719 patent on the basis that the identification and extraction steps must occur at a PLC; instead, Ficep merely says that the '719 system includes "componentry" that performs these functions, unlike Jones.¹⁶ Accordingly, this statement does not exclude an interpretation of the '719 patent in which the identification and extraction of intersection parameters occur

¹⁶ See also ECF No. 33-2 at 178 (prosecution history) ("Concomitantly, Jones does not disclose or suggest an automatic manufacturing system with *elements* that identify and extract intersection parameters from a design model.") (emphasis added).

at componentry other than the PLC.¹⁷ Similarly, Ficep's statements that the '719 patent system includes a PLC, and that extraction of a design model can occur at the PLC, do not clearly distinguish Jones on the basis that--in the '719 patent--extraction and identification steps *must* occur at a PLC. See ECF No. 33-2 at 177-78.

The language of the claim terms also provides no support for limiting to the PLC the performance of the identification and extraction steps. Voortman contends that the order of the steps of the method taught by claim 1 requires that the extraction and identification steps are performed at the PLC, because the steps immediately preceding and following the extraction and identification steps specifically occur at the PLC. ECF No. 34-1 at 7, col.7 ll.56-67, col.8 ll.1-4. However, generally "the claim is not limited to performance of the steps in the order recited, unless the claim explicitly or implicitly requires a specific order." *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1345 (Fed. Cir. 2008). Further, even if the steps must be performed in the order recited, there is no reason the identification and extraction steps must be

¹⁷ Further, the prosecution history does not specifically reference "extracting . . . a plurality of component dimensions," and thus does not support Voortman's contention that this step also must be performed at the PLC.

performed at the PLC merely because they occur in sequence with other steps that must occur at the PLC.

Finally, "when construing claim terms and phrases, the Court cannot add or subtract words from the claims." *W.L. Gore & Associates, Inc. v. Medtronic, Inc.*, 834 F. Supp. 2d 465, 469 (E.D. Va. 2011) *aff'd*, 530 F. App'x 939 (Fed. Cir. 2013).

Neither the prosecution history, nor the language of the claim terms,¹⁸ requires the performance of these steps at the PLC.

Thus, the Court will not read Voortman's proposed limitation into the claim terms when it is not already present. *See Renishaw*, 158 F.3d at 1248 ("[T]he resulting claim interpretation must, in the end, accord with the words chosen by the patentee to stake out the boundary of the claimed property.").

ii. without human intervention

Voortman contends that the phrase "without human intervention" should be added to several claim terms,¹⁹ because

¹⁸ The specification does not state that the identification and extraction steps must be performed at the PLC, but instead notes only that "[t]he step of extraction . . . can occur by using a logic system associated with a [PLC]." ECF No. 34-1 at 5, col.3 ll.56-57 (emphasis added). Also, in the "Summary of the Invention" section, the specification states that the design model of the object is "receiv[ed] at a [PLC]"--as reflected in the claims--but does not state that the extracting or identifying steps occur at a PLC. *See id.* at 4, col.2 ll.11-12.

¹⁹ These claim 1 terms are:

this construction "stays true to the claim language[,] most naturally aligns with the patent's description of the invention[, and] comports with the arguments Ficep made during prosecution in order to get the claims allowed." See, e.g., ECF No. 33 at 31-32. Ficep argues again that Voortman is impermissibly reading limitations into claims. ECF No. 34 at 8.

During the prosecution history, Ficep distinguished Jones, in part,²⁰ on the basis of the necessity for human involvement in the Jones system. Ficep stated that "Jones [is] concerned with the kind of system described in the background section of

"receiving, at a programmable logic controller, the design model of the object"

"extracting from the design model a plurality of component dimensions defining a plurality of components of the object"

"identifying a plurality of intersection and manufacturing parameters which define in part the intersection of the two components"

"extracting from the design model the intersection and manufacturing parameters"

"transmitting the intersection and manufacturing parameters and the component dimensions from the programmable logic controller to at least one manufacturing machine"

"manufacturing, by means of the at least one manufacturing machine, the components based at least partly on the transmitted component dimensions and the transmitted intersection and manufacturing parameters"

²⁰ See *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1374 (Fed. Cir. 2007) ("[A]n applicant's argument that a prior art reference is distinguishable on a particular ground can serve as a disclaimer of claim scope even if the applicant distinguishes the reference on other grounds as well.").

applicant's disclosure[, in which] a human operator typically must program manually manufacturing machines associated with an assembly line."²¹ ECF No. 33-2 at 177. The '719 patent "invention aims to eliminate such problems [by] eliminat[ing] errors made in the process of transferring a CAD generated design into instructions for controlling a manufacturing machine." *Id.* The '719 patent claims "include[] at least one [PLC which,] being in communication with both the computing device . . . and the manufacturing machine . . . overcomes the problems of the prior art." *Id.*

In other words, to distinguish the '719 patent from prior art, Ficep argued that, unlike Jones, the '719 patent teaches a method which does not require human intervention to transfer instructions from the CAD terminal to the manufacturing machine. The PLC--as used in the '719 patent--"overcomes" the problems of human operation, including unavailability and operator error. Thus, it is appropriate to construe the '719 patent claims "so as to exclude [an] interpretation that was disclaimed during prosecution"--human intervention at the PLC step."²² *Southwall*, 54 F.3d at 1576.

²¹ As in the patent specification, Ficep noted that problems with this system "include the unavailability of an operator and the input of erroneous parameters." ECF No. 33-2 at 177.

²² At the hearing, Ficep argued that construing the claims to exclude human intervention at the PLC steps was not warranted by

Thus, based on the prosecution history, inclusion of the phrase "without human intervention"²³ is appropriate in the following two terms:

"receiving, *without human intervention* at a programmable logic controller, the design model of the object"

"transmitting, *without human intervention*, the intersection and manufacturing parameters and the component dimensions from the programmable logic controller to at least one manufacturing machine"

However, although the prosecution history clearly distinguishes Jones on the basis that human operation is no longer needed in transferring instructions from the CAD terminal to the manufacturing machine, it does not distinguish Jones on the basis of the "automated" nature of the system as a whole, as discussed above. *See supra* Section II.B.1. Thus, the

the prosecution history, because human error in transmitting instructions from the CAD terminal to the manufacturing machine could be eliminated even if, for example, a human was needed to physically transfer the instructions contained on a computer disk. Tr. at 40, 52. However, Ficep also distinguished the '719 patent on the basis that it eliminated the problem of operator unavailability in transmitting instructions; thus, the PLC steps must be performed without the involvement of a human operator.

²³ The patent specification states that "[in] some embodiments," the transmission of the design model from the PLC to the manufacturing machines occurs "automatically or *without human intervention*." ECF No. 34-1 at 6, col.6 ll.48-52 (emphasis added); see also ECF No. 34-1 at 5, col.4 ll.53-54 ("transmission can occur automatically, i.e., without human intervention"). Accordingly, the use of this particular phrase to effectuate the prosecution history's limitation on the scope of the claims is supported by the specification.

prosecution history does not support the addition of the phrase "without human intervention" to claim terms that are not expressly associated with actions performed at the PLC.

Voortman contends that inclusion of the phrase "without human intervention" at steps that do not explicitly occur at the PLC is appropriate, because the specification provides that "the entire manufacturing process is completed without direct human intervention." ECF No. 33 at 27. Although the specification notes that the entire system can be fully automated, the specification also refers multiple times to the possibility of human intervention, and the bodies of the claims do not use the word "automatic," as discussed above. See ECF No. 34-1 at 6, col.5 ll.26-30; *supra* Section II.B.1.²⁴

Thus, the intrinsic evidence does not support the addition of the limitation "without human intervention" at steps other than those expressly performed at the PLC.²⁵

²⁴ See also *Liebel-Flarsheim*, 358 F.3d at 908 ("The fact that a patent asserts that an invention achieves several objectives does not require that each of the claims be construed as limited to structures that are capable of achieving all of the objectives."); *Medtronic*, 834 F. Supp. 2d at 469 ("When construing claim terms and phrases, the Court cannot add or subtract words from the claims.").

²⁵ Accordingly, the Court will reject the addition of the phrase "without human intervention" in the following claim terms:

"extracting from the design model a plurality of component dimensions defining a plurality of components of the objects"

iii. intersection parameters and
manufacturing parameters

Voortman proposes construing the claim "identifying a plurality of intersection and manufacturing parameters which define in part the intersection of the two components" to include definitions of "intersection parameters" and "manufacturing parameters." ECF No. 33 at 34. Voortman contends that "intersection parameters" should be defined as "the point at which the two components intersect," and "manufacturing parameters" should be defined as "the manufacturing to be performed on the components."²⁶ *Id.* Voortman argues that its constructions are appropriate, because "[t]hese terms have special meanings in the context of the specification." *Id.* at 36. Ficep contends that these

"identifying a plurality of intersection and manufacturing parameters which define in part the intersection of the two components"

"extracting from the design model the intersection and manufacturing parameters"

"manufacturing, by means of the at least one manufacturing machine, the components based at least partly on the transmitted component dimensions and the transmitted intersection and manufacturing parameters"

²⁶ Although Voortman originally proposed that "manufacturing parameters" should be defined as "the manufacturing to be performed on the components at the *point of intersection*," in its responsive brief it has "agree[d] to modify its construction to omit" the italicized language "[i]n the interest of potentially reaching agreement regarding the construction of this limitation." ECF No. 40 at 20.

definitions "do[] not clarify the meaning of the claim language" and "conflict with the actual language of claim 1," which recites "'a plurality of intersection and manufacturing parameters which define in part *the intersection of the two components.*'" ECF No. 34 at 11 (emphasis in original).

Voortman contends that its definitions are supported in the following excerpt from the specification:

After extracting a plurality of components, the method 100 proceeds to identify a plurality of intersection and/or manufacturing parameters, which define a plurality of intersections of the components of the object Intersection and/or manufacturing parameters are generally associated with an intersection or association of any two or more components that make up an object. To continue with the previous shed example, the H-shaped components that form the pillars of the shed and the beams intersect by means of the installation of cross arms, fixed by means of bolts to said pillars on which the beams are lain on. *The point at which the pillar intersects the beam, that is to say the point where the cross arm should be installed, is an intersection point. The intersection and/or manufacturing parameters define this intersection point and the manufacturing to be performed.*

ECF No. 34-1 at 5, col.4 ll.8-23 (emphasis added). Voortman's proposed definitions do not appear in this specification excerpt with "reasonable clarity, deliberateness, and precision." See *Renishaw*, 158 F.3d at 1249. Voortman's construction breaks out the definitions of "intersection parameters" and "manufacturing parameters;" however, these terms are not referenced separately in this excerpt of the specification. Moreover, this excerpt

refers to "intersection and/or manufacturing parameters," indicating that the two terms are defined conjunctively or interchangeably.

However, this excerpt states that "intersection and/or manufacturing parameters define" the "intersection point"--which is further defined as "[the] point at which the [two components] intersect[]"--and "the manufacturing to be performed." The current broader claim language--"the intersection of the two components"--encompasses the more narrow language proposed by Voortman--"the point at which the two components intersect." Adoption of the narrower language would not clarify the meaning of this phrase, but instead would impermissibly detract from the scope of the current claim language. See *Ineco*, 177 F. Supp. 2d at 445. However, the specification explicitly defines "intersection and/or manufacturing parameters" to also include "the manufacturing to be performed." Thus, the addition of this phrase to further clarify the meaning of the claim term "intersection and manufacturing parameters" is appropriate.²⁷

Thus, the Court will adopt the following constructions for the remaining disputed claim 1 terms (constructions 3-8):

²⁷ Although neither party proposed this definition, "the trial judge has an independent obligation to determine the meaning of the claims, notwithstanding the views asserted by the adversary parties." See *Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1555 (Fed. Cir. 1995).

Claim Language	Court's Construction
3. "receiving, at a programmable logic controller, the design model of the object"	"receiving, without human intervention at a programmable logic controller, the design model of the object"
4. "extracting from the design model a plurality of component dimensions defining a plurality of components of the object"	No change; plain and ordinary meaning
5. "identifying a plurality of intersection and manufacturing parameters which define in part the intersection of the two components"	"identifying a plurality of intersection and manufacturing parameters which define in part the intersection of the two components and the manufacturing to be performed"
6. "extracting from the design model the intersection and manufacturing parameters"	No change; plain and ordinary meaning
7. "transmitting the intersection and manufacturing parameters and the component dimensions from the programmable logic controller to at least one manufacturing machine"	"transmitting, without human intervention, the intersection and manufacturing parameters and the component dimensions from the programmable logic controller to at least one manufacturing machine"
8. "manufacturing, by means of the at least one manufacturing machine, the components based at least partly on the transmitted component dimensions and the transmitted intersection and manufacturing parameters"	No change; plain and ordinary meaning

c. Indefiniteness: Claims 7 and 14

Voortman contends that three claim terms²⁸ in claims 7 and 14 are indefinite, because they "do[] not include a previous

²⁸ These claim terms are:

"machining parameters" (claim 7)

"the transmitted . . . manufacturing parameters" (claim 7)

recitation of" the terms and thus lack an antecedent basis.²⁹ See, e.g., ECF No. 33 at 43. Ficep argues that the terms are not insolubly ambiguous, and that an antecedent basis for a term can be implied. ECF No. 39 at 19-20.

"[D]etermination of claim indefiniteness is a legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims." *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1376 (Fed. Cir. 2001) (internal quotation marks omitted), *abrogated on other grounds by Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2130 (2014). Section 112 of the Patent Act requires that every patent's specification "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor . . . regards as the invention." 35 U.S.C. § 112(b). "Because the claims perform the fundamental function of delineating the scope of the invention, the purpose of the definiteness requirement is to ensure that the claims delineate the scope of the invention using language that adequately notifies the public of the patentee's right to exclude." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d

"manufacturing parameters" (claim 14)

²⁹ Voortman proposed constructions for each allegedly indefinite term, in the event that the Court disagreed that the terms are indefinite. See, e.g., ECF No. 33 at 43.

1342, 1347 (Fed. Cir. 2005) (internal citations omitted),
abrogated on other grounds by *Nautilus*, 134 S. Ct. at 2130; see
also *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U.S. 403, 437,
22 S. Ct. 698, 712, 46 L. Ed. 968 (1902) ("[A]ny description
which is sufficient to apprise [others] in the language of the
art of the definite feature of the invention, and to serve as a
warning to others of what the patent claims as a monopoly, is
sufficiently definite to sustain the patent." (quoted in
Nautilus, 134 S. Ct. at 2128-29)).

Previously, the Federal Circuit held that "[o]nly claims
'not amenable to construction' or 'insolubly ambiguous' are
indefinite." *Datamize*, 417 F.3d at 1347. In the recently
decided *Nautilus* opinion, the Supreme Court rejected that
standard, reasoning that it "diminish[ed] the definiteness
requirement's public-notice function and foster[ed] the
innovation-discouraging 'zone of uncertainty,'" by breeding
confusion and "tolerat[ing] imprecision just short of that
rendering a claim 'insolubly ambiguous.'" *Nautilus*, 134 S. Ct.
at 2130 & n.9. Instead, the Supreme Court held that, under
§ 112, patent claims are sufficiently definite when "viewed in
light of the specification and prosecution history, [the claims]

inform those skilled in the art about the scope of the invention with reasonable certainty.”³⁰ *Id.* at 2129.

Even under the Federal Circuit’s weaker indefiniteness standard, a claim was indefinite if it did “not have proper antecedent basis where such basis is not otherwise present by implication or the meaning is not reasonably ascertainable.” *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249 (Fed. Cir. 2008).

The terms “manufacturing parameters” and variations of the word “transmitted” are used throughout the specification, and in claim 1. *See, e.g.*, ECF No. 34-1 at 5, col.3 ll.1-2. The term “machining parameters” is also used in the specification. *Id.* at 7, col.7 l.36. Accordingly, these terms are not indefinite for lack of an antecedent basis. *See, e.g., Univ. of Virginia Patent Found. v. Gen. Elec. Co.*, 755 F. Supp. 2d 709, 733 (W.D. Va. 2010) (“Although [the allegedly indefinite claim] term is not used in the other claims, its use in the specification provides a basis for its introduction in dependent Claim 6.”).

d. Claims 7 and 14: Disputed Constructions 9-19

i. at the programmable logic controller

Voortman contends that the phrase “at the programmable logic controller” should be added to several claim terms in

³⁰ In *Nautilus*, the Court did not apply the new standard for indefiniteness, but instead remanded to the Federal Circuit for application. 134 S. Ct. at 2131.

claim 14 for the reasons discussed above.³¹ See, e.g., ECF No. 33 at 46. For the reasons discussed previously, the intrinsic evidence does not support the addition of this phrase to claim 14 terms. See *supra* Section II.B.2.b.i.

However, in claim 7, the claimed apparatus includes "a processor which is associated with the [PLC] and extracts from the design model a plurality of dimensions of components which define a plurality of components of the object." ECF No. 34-1 at 7, col.8 ll.39-42 (emphasis added). The two claim terms immediately following begin with the phrase "wherein the processor," indicating that they describe features of the processor previously mentioned.³² *Id.* col. 8 ll.43-47 (emphasis

³¹ The claim 14 terms are:

"computer-readable code for extracting from the design model a plurality of component dimensions which define a plurality of components of the object"

"computer-readable code for identifying a plurality of intersection parameters which define the intersection of the two components"

"computer-readable code for extracting from the design model the intersection and manufacturing parameters"

"computer-readable code for transmitting the intersection and manufacturing parameters and the component dimensions from the programmable logic controller to at least one manufacturing machine"

³² The claim 7 terms are:

"wherein the processor identifies a plurality of intersection parameters which define the intersection of the two components"

added). Voortman requests to clarify that, in both of these claim terms, this processor is "associated with the [PLC]," because this clarification is supported by the language of the claims. See ECF No. 33 at 41-42.

As the previous claim term expressly states that the processor is associated with a PLC, and the disputed claim terms' language indicates that they are referencing the same processor, Voortman's proposed construction is supported by the language of the claims and would "elaborat[e] the normally terse claim language in order to understand and explain, but not to change, the scope of the claims."³³ *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1322 (Fed. Cir. 2001). Accordingly, the Court will construe the two terms that reference "the processor" to state that the processor is "associated with the [PLC]."

"wherein the processor extracts from the design model the intersection parameters"

³³ In opposition to this construction, Ficep argued at the hearing that the jury might misinterpret the word "associated" to require that the processor is located at the PLC, instead of merely "related" to the PLC. See Tr. at 58. However, Voortman's proposed construction merely recites the language of the preceding term which uses the phrase "associated with the PLC." To avoid this possible misinterpretation, Ficep could have proposed a construction of the claim term "associated," but instead asserted that the plain and ordinary meaning was sufficient.

Finally, Voortman's proposed construction for the claim term "a transmitter associated with the processor for transmitting the intersection and machining parameters and the component dimensions from the programmable logic controller to the at least one manufacturing machine" replaces the word "processor" with "PLC." ECF No. 33 at 42-43. Voortman has offered no support for this construction, and the specification and claim language suggest that the processor and PLC are different components.³⁴ Accordingly, the Court will reject this construction.

ii. without human intervention

Voortman contends that the phrase "without human intervention" should be added to several claim terms in claims 7 and 14 for the same reasons it argues that the phrase should be added to claim 1 terms. See, e.g., ECF No. 33 at 46. For the reasons discussed above, inclusion of this phrase is unwarranted with respect to any claim term that does not reference the PLC.³⁵ See *supra* Section II.B.2.b.ii.

³⁴ See, e.g., ECF No. 34-1 at 6, col.6 ll.10-13 ("the manufacturing machine . . . may itself include a logic system, such as a processor, capable of communicating with the [PLC]").

³⁵ The claim terms that do not reference the PLC are:

"wherein the at least one manufacturing machine manufactures the components based at least in part on the transmitted component dimensions and on the transmitted intersection and manufacturing parameters" (claim 7)

Four terms--whether in the patent language or because of the Court's construction--reference actions performed by the "processor" or "receiver" that is "associated with the [PLC]."³⁶ Two other terms reference transmitting parameters from the PLC

"computer-readable code for extracting from the design model a plurality of component dimensions which define a plurality of components of the object" (claim 14)

"computer-readable code for identifying a plurality of intersection parameters which define the intersection of the two components" (claim 14)

"computer-readable code for extracting from the design model the intersection and manufacturing parameters" (claim 14)

"computer-readable code for manufacturing, by means of the at least one manufacturing machine, the components based at least in part on the transmitted component dimensions and on the transmitted parameters" (claim 14)

³⁶ These claim terms are:

"a receiver associated with the programmable logic controller for receiving the design model of the object" (claim 7)

"a processor which is associated with the programmable logic controller and extracts from the design model a plurality of dimensions of components which define a plurality of components of the object"

"wherein the processor associated with the programmable logic controller identifies a plurality of intersection parameters which define the intersection of the two components" (claim 7, as construed by the Court)

"wherein the processor associated with the programmable logic controller extracts from the design model the intersection parameters" (claim 7, as construed by the Court)

to the manufacturing machine.³⁷ As discussed above, after the PTO rejected all the claims of the '719 patent, Ficep distinguished its "invention" on the basis that steps performed using the PLC did not require intervention by a human operator, which "eliminate[d] . . . problems" in the prior art associated with human error and unavailability. ECF No. 33-2 at 177. Accordingly, Ficep's express disclaimer of claim scope during prosecution history requires that the PLCs in claims 7 and 14 operate without human intervention.³⁸

³⁷ "a transmitter associated with the processor for transmitting the intersection and machining parameters and the component dimensions from the programmable logic controller to the at least one manufacturing machine" (claim 7)

"computer-readable code for transmitting the intersection and manufacturing parameters and the component dimensions from the programmable logic controller to at least one manufacturing machine" (claim 14)

³⁸ Ficep argues that inclusion of the phrase "without human intervention" is inappropriate for apparatus and article of manufacture claims, because "[t]he presence or absence of a human being is irrelevant" to determining the claims' scope. See ECF No. 39 at 13-14. With respect to apparatus claims, Ficep argues that they "cover what a device is, not what it does." *Id.* However, Ficep has not cited any authority for the proposition that apparatus or article of manufacture claims can never be limited in the type of uses to which the device or article can be put. *Cf. Paragon Solutions, LLC v. Timex Corp.*, 566 F.3d 1075, 1090-91 (Fed. Cir. 2009) ("*Absent an express limitation to the contrary, any use of a device that meets all of the limitations of an apparatus claim written in structural terms infringes that apparatus claim.*") (emphasis added). Moreover, the addition of the language "without human intervention" requires the device or article to operate in a particular way; it does not limit the uses to which the device or article can be put while in operation.

iii. Manufacturing, Intersection, and
Machining Parameters

Voortman proposes, without citation or elaboration, to construe "machining parameters" to have the same meaning as it proposes for "manufacturing parameters"--"the manufacturing to be performed on the components at the point of intersection." ECF No. 33 at 43. There is no support for this definition in the claim language, specification, or prosecution history. Moreover, "when an applicant uses different terms in a claim it is permissible to infer that he intended his choice of different terms to reflect a differentiation in the meaning of those terms." *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1119 (Fed. Cir. 2004). Accordingly, the Court will presume that the different terms "machining parameters" and "manufacturing parameters" have different meanings and will reject Voortman's proposed construction of this term.

Also, for the reasons discussed above, *see supra* Section II.B.2.b.iii, the Court will reject Voortman's proposed constructions that separately define "manufacturing parameters" and "intersection parameters" to mean, respectively, "the manufacturing to be performed on the components" and "the point at which the two components intersect."

Constructions 9-19


Claim Language	Court's Construction
9. "a receiver associated with the programmable logic controller for receiving the design model of the object"	"a receiver associated with the programmable logic controller for receiving, without human intervention, the design model of the object"
10. "a processor which is associated with the programmable logic controller and extracts from the design model a plurality of dimensions of components which define a plurality of components of the object"	"a processor which is associated with the programmable logic controller and extracts, without human intervention, from the design model a plurality of dimensions of components which define a plurality of components of the object"
11. "wherein the processor identifies a plurality of intersection parameters which define the intersection of the two components"	"wherein the processor associated with the programmable logic controller identifies, without human intervention, a plurality of intersection parameters which define the intersection of the two components"
12. "wherein the processor extracts from the design model the intersection parameters"	"wherein the processor associated with the programmable logic controller extracts, without human intervention, from the design model the intersection parameters"
13. "a transmitter associated with the processor for transmitting the intersection and machining parameters and the component dimensions from the programmable logic controller to the at least one manufacturing machine"	"a transmitter associated with the processor for transmitting, without human intervention, the intersection and machining parameters and the component dimensions from the programmable logic controller to the at least one manufacturing machine"
14. "wherein the at least one manufacturing machine manufactures the components based at least in part on the transmitted component dimensions and on the	No change; plain and ordinary meaning

transmitted intersection and manufacturing parameters"	
15. "computer-readable code for extracting from the design model a plurality of component dimensions which define a plurality of components of the object"	No change; plain and ordinary meaning
16. "computer-readable code for identifying a plurality of intersection parameters which define the intersection of the two components"	No change; plain and ordinary meaning
17. "computer-readable code for extracting from the design model the intersection and manufacturing parameters"	No change; plain and ordinary meaning
18. "computer-readable code for transmitting the intersection and manufacturing parameters and the component dimensions from the programmable logic controller to at least one manufacturing machine"	"computer-readable code for transmitting, without human intervention, the intersection and manufacturing parameters and the component dimensions from the programmable logic controller to at least one manufacturing machine"
19. "computer-readable code for manufacturing, by means of the at least one manufacturing machine, the components based at least in part on the transmitted component dimensions and on the transmitted parameters."	No change; plain and ordinary meaning

III. Conclusion

For the reasons stated above, the Court will adopt the constructions as described.

7/15/14
Date



William D. Quarles, Jr.
United States District Judge