United States District Court,
D. Delaware.

ADVANCED MEDICAL OPTICS, INC., a Delaware corporation,
Plaintiff.
v.
ALCON INC., a Swiss corporation, and Alcon Laboratories, Incorporated,
a Delaware corporation. Defendants.

No. CIV.A.03-1095-KAJ

March 28, 2005.

Background: Owner of patents for apparatus and method of removing eye cataracts sued competitor for infringement.

Holdings: Construing claims, the District Court, Jordan, J., held that:
(1) preamble to method claim was limiting;
(2) "sensing vacuum level" step referred to vacuum level detected by vacuum sensor of control unit;
(3) requirement that ultrasonic power level be "variably controlled" in response to sensed vacuum level, meant ability of control unit to automatically change amount of ultrasonic power, other than merely turning it on or off;
(4) "control unit" was electronics that received and processed electrical input signals and generated electrical output signals; and
(5) "means for directing rising gas" consisted of generally circular or toroidal shape identified in specification, and its equivalents.

Claims construed.

See also 2004 WL 1877724.

Court-Filed Expert Resumes

5,700,240, 6,059,765. Construed.

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MEMORANDUM OPINION

JORDAN**, District Judge.**

I. INTRODUCTION

This is a patent infringement case. Presently before me are the parties' requests for construction of the disputed claim language of U.S. Patent No. 5,700,240 (issued Dec. 23, 1997) (the " '240 patent") and U.S. Patent No. 6,059,765 (issued May 9, 2000) (the " '765 patent"), pursuant to Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). The plaintiff in this case is Advanced Medical Optics, Inc. ("AMO"). The defendants are Alcon Laboratories, Inc. and Alcon Manufacturing, Ltd. (collectively, "Alcon"). The parties have fully briefed and argued their positions. Jurisdiction is proper under 28 U.S.C. s. 1338.

II. BACKGROUND

A. Procedural Background

AMO filed a complaint for patent infringement against Alcon Laboratories, Inc. on December 3, 2003. (Docket Item ["D.I."] 1.) AMO subsequently filed an amended complaint adding Alcon Manufacturing, Ltd. on February 13, 2004. (D.I. 25.) Alcon filed an answer to AMO's amended complaint on March 3, 2004 and asserted a counterclaim for a declaratory judgment that the '240 and '765 patents are "not infringed and/or are invalid." (D.I. 34 at 8.) AMO filed a reply to Alcon's counterclaim, denying that the patents at issue are either invalid or not infringed. (D.I. 40.) AMO and Alcon are scheduled to try this case before a jury beginning on April 25, 2005. (D.I. 32.)

B. The Disclosed Technology

The '240 patent discloses an apparatus and method for performing certain aspects of a surgical technique to remove cataracts using phacoemulsification. (*See* '765 patent, Abstact.) The '765 patent discloses a fluid management system, specifically a fluid management apparatus and method for reducing expandable gas in the aspiration line of a fluid management system. (*See* '240 patent, col. 2, ll. 26-27, col. 4, ll. 58-col. 6, ll. 62.)

1. The State of the Art

A cataract is "an opacification of the lens of the eye that obstructs normal vision," and is often accompanied by a hardening of the lens. (D.I. 151, Ex. 3A at A0048, Expert Report of Mr. George Eilers.) During cataract surgery, the diseased lens is removed and replaced with an artificial lens. (Id. at A0049.) The surgery generally consists of making an incision in the eye, removing the diseased lens, and inserting the implant. (Id.) Because of medical considerations, it is desirable to make the smallest incision possible, often smaller than the lens itself. (Id.) In order to extract the lens through such a small incision, various surgical techniques have been developed to reduce the lens to smaller pieces before removing it. (Id.) Phacoemulsification "has become the preferred technique" for accomplishing this task. (Id.) Phacoemulsification involves inserting a hollow needle into the incision in the eye and delivering high-level ultrasonic energy to the lens to break it into small pieces which can then be removed. (Id.) A vacuum is applied to the needle to aspirate, and thereby remove, the broken pieces of the lens. (Id.) During this procedure, irrigating fluid is also delivered to the eye through a sleeve that surrounds the inserted needle. (Id.) The irrigating fluid serves at least two functions: it replaces the fluid that is aspirated by the vacuum and it cools the eye by removing the heat generated by the ultrasonic energy. (Id.)

The surgical instrument commonly used in modern day phacoemulsification systems is a handpiece containing a tip (the aforesaid needle) that can be activated to vibrate at ultrasonic frequencies. (D.I. 138 at 1.) The handpiece is connected to a console that controls the various functions of the machine. (Id. at 2.) Connected to the handpiece are a tube for bringing the irrigating fluid to the surgical site, a second tube, which is connected to a pump that provides suction to perform the aspirating function, and a cable that connects the handpiece to the console containing the source of ultrasonic power. (Id.) "These systems have control units that include a variable speed peristaltic pump, a vacuum sensor, an adjustable source of ultrasonic power and a programmable microprocessor with operator-selected presets for controlling aspiration rate, vacuum and ultrasonic power levels." ('240 patent, col. 1, ll. 51-56.)

To perform a phacoemulsification procedure, the surgeon would typically control the various components by depressing a foot pedal "to initiate the delivery of irrigation fluid, the aspiration of fluid, and the delivery of ultrasonic power." (D.I. 151, Ex. 3A at A0049, Expert Report of Mr. George Eilers.) The surgeon could program the microprocessor by setting maximum ultrasonic power levels, to limit the amount of power delivered to the surgical site. (Id.) The microprocessor could also "control the aspiration rate by controlling the speed of the peristaltic pump ... [and] limit the aspiration rate to a present flow rate." (Id.)

During the procedure, the broken lens is drawn to the tip of the needle by the fluid flow. (Id. at A0050.) Occasionally, an occlusion or blockage of the opening of the needle can occur, reducing or stopping the flow of fluid. (Id.) A lens fragment or kink in the tubing may block the flow of fluid in the tubing connecting the handpiece to the vacuum pump. (Id.) In response to an occlusion, surgeons can either increase or decrease the ultrasonic power in an attempt to clear the blockage and resume the normal fluid flow. (Id.) Occlusions can be dangerous to the patient because, if the ultrasonic power is increased, the increased heat generated at the incision site may cause a corneal burn. (Id.) Further, if the pump continued to run, during an occluded state, the vacuum level in the aspiration line would increase and could lead to a sudden flow surge once the occlusion was cleared. (Id.) Thus, occlusions were considered by some surgeons to be problematic during phacoemulsification procedures. FN1 (D.I. 138 at 2.)

FN1. Alcon takes issue with AMO's assertion that a "significant problem with prior art phacoemulsification systems is that the aspiration inlet of the needle can become 'occluded,' or clogged with fragments of the emulsified lens." (*See* D.I. 187 at 2 (quoting AMO's Brief in Support of Claim Construction (D.I.138) at 2).) Alcon contends that some surgical techniques deliberately use occlusion during phacoemulsification. (Id.) I do not understand Alcon to be disputing, however, that occlusion can become a problem during surgery and may be a factor in thermal injury. (*See* id. at 2-3.)

2. The '240 Patent

The '240 patent discloses a method and apparatus for varying the ultrasonic power delivered to the surgical handpiece during a phacoemulsification procedure. ('240 patent, Abstract.) AMO has asserted claims 1, 3, 5, and 6 against Alcon in this litigation. (D.I. 25 at para. 12; D.I. 138 at 3.) Specifically, claims 1 and 3 are directed to a method for operating a phacoemulsification system in which a vacuum sensor controls the ultrasonic power being delivered to the handpiece ('240 patent, col. 7, ll. 36-38, ll. 63-64) and claims 5 and 6 are directed to a phacoemulsification apparatus which can be used to perform the methods of claims 1 and 3 (id., col. 8, ll. 18, 33-34).

3. The '765 Patent

The '765 patent relates to a fluid management apparatus for use with a surgical instrument having fluid irrigation and aspiration lines for endophthalmic surgery. (*See* '765 patent, col. 1, ll. 6-7, col. 2, ll. 26-28.)

The apparatus includes "a console having an aspiration pump and a separate housing FN2 which includes a chamber disposed therein having an aspiration fluid inlet and an aspiration fluid outlet. The aspiration fluid outlet is disposed along a housing longitudinal axis and is connected to the aspiration pump." (Id., col. 2, ll. 28-33.) AMO has asserted claims 1, 2, 7, 8, 13, and 19 against Alcon. (D.I. 25 at para. 14; D.I. 138 at 4.) Specifically, claims 1, 2, 7, 8, and 13 are directed to the fluid management apparatus, and claim 19 is directed to "[a] method for reducing expandable gas in the aspiration line of a fluid management system." (Id., col. 6, ll. 44-45.)

FN2. The housing is often referred to as a cartridge or cassette. (D.I. 138 at 3 n. 2; D.I. 171 at 3.)

III. APPLICABLE LAW

[1] [2] [3] [4] Patent claims are construed as a matter of law. Markman, 52 F.3d at 979. A court's objective is to determine the ordinary and customary meaning, if any, that those of skill in the art would apply to the language used in the patent claims. Waner v. Ford Motor Co., 331 F.3d 851, 854 (Fed.Cir.2003) (citing Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342 (Fed.Cir.2001)). In this regard, pertinent art dictionaries, treatises, and encyclopedias may assist a court. Texas Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202-03 (Fed.Cir.2002). The intrinsic record, however, is the best source of the meaning of claim language. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). Therefore, patent claims are properly construed only after an examination of the claims, the specification, and, if in evidence, the prosecution history of the patent. Amgen, Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1324 (Fed.Cir.2003) (citing Vitronics, 90 F.3d at 1582).

The intrinsic record is also of prime importance when claim language has no ordinary meaning in the pertinent art, *see* Bell Atl. Network Servs., Inc. v. Covad Communications Group, Inc., 262 F.3d 1258, 1269-70 (2001) (determining that claim language could only be construed with reference to the written description) (citation omitted), and where claim language has multiple potentially applicable meanings, Texas Digital, Inc., 308 F.3d at 1203.

[5] [6] If patent claim language has an ordinary and accustomed meaning in the art, there is a heavy presumption that the inventor intended that meaning to apply. Bell Atl. Network Servs., Inc., 262 F.3d at 1268 (citing Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed.Cir.1999)). Thus, unless the inventor has manifested an express intent to depart from that meaning, the ordinary meaning applies. Teleflex, Inc. v. Ficosa N. Am. Corp., 299 F.3d 1313, 1325 (Fed.Cir.2002) (citation omitted).

[7] To overcome that presumption, an accused infringer may demonstrate that "a different meaning is clearly set forth in the specification or ... the accustomed meaning would deprive the claim of clarity." *N.* Telecom Ltd. v. Samsung Elecs. Co., Ltd., 215 F.3d 1281, 1287 (Fed.Cir.2000). However, the presumption may not be rebutted "simply by pointing to the preferred embodiment...." Teleflex, Inc., 299 F.3d at 1327. It may be rebutted, though, where "the patentee ... deviate[d] from the ordinary and accustomed meaning ... by redefining the term or by characterizing the invention in the intrinsic record using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." *Id.*

[8] [9] If claim language remains unclear after review of the intrinsic record, a court "may look to extrinsic evidence to help resolve the lack of clarity." Interactive Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1332 (Fed.Cir.2001). The use of extrinsic evidence in the claim construction process, however, is "proper only when the claim language remains genuinely ambiguous after consideration of the intrinsic evidence." *Id.* (citation omitted). A court may not use extrinsic evidence to contradict the import of the intrinsic record, and if the intrinsic record is unambiguous, extrinsic evidence is entitled to no weight. Bell & Howell Document Mgmt. Prods. Co. v. Altek Sys., 132 F.3d 701, 706 (Fed.Cir.1997).

IV. CLAIM CONSTRUCTION

AMO alleges that Alcon directly and indirectly infringes claims 1, 3, 5, and 6 of the '240 patent. (D.I. 25 at para. 12; D.I. 138 at 3.) AMO also alleges that Alcon directly infringes claims 1, 2, 7, 8, 13, and 19 of the '765 patent. (D.I. 25 at para. 14; D.I. 138 at 4.) Each claim will be discussed in turn, according to the claim terms in dispute.

A. '240 Patent

1. Claim 1

Claim 1 of the '240 patent is as follows:

A method for operating a phacoemulsification system, the system including a phacoemulsification handpiece, an ultrasonic power source, a vacuum source, a source of irrigating fluid, and a control unit having a vacuum sensor for controlling ultrasonic power provided to the handpiece and the aspiration of irrigating fluid from the handpiece, said operating method comprising the steps of:

(a) placing the handpiece in an operative relationship with an eye for a phacoemulsification procedure;

(b) supplying irrigation fluid from the irrigation fluid source to and through the handpiece and into said eye;

(c) providing ultrasonic power from the ultrasonic power source to the handpiece for performing the phacoemulsification procedure;

(d) applying vacuum from the vacuum source to the handpiece and thereby aspirating the irrigating fluid from the eye through the handpiece at a selected rate;

(e) during said fluid aspiration step, sensing a vacuum level in the handpiece corresponding to an occluded condition of the handpiece; and

(f) variably controlling, in response to sensed vacuum level in the handpiece corresponding to the occluded condition of the handpiece, the ultrasonic power being provided to the handpiece.

('240 patent, col. 7, ll. 33-57.)

a. The Preamble

i. The Parties' Proposed Constructions

AMO argues that the preamble is limiting and therefore requires construction. (D.I. 138 at 14-17.) AMO asserts that the preamble is "essential to understand [the] limitations or terms in the claim body, [and] ... limits [the] claim scope." (Id. at 14 (citing Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1306 (Fed.Cir.1999); Eaton Corp. v. Rockwell Int'l Corp., 323 F.3d 1332, 1340 (Fed.Cir.2003) (" *Eaton* ")).) Specifically, AMO asserts that the preamble recites one of the novel features of the invention, "a control unit having a vacuum sensor for controlling ultrasonic power...." (D.I. 192 at 22-23.) Additionally, AMO argues that the limitations in the body of the claim find antecedent basis in the preamble. (*Id*. at 26.) Specifically, AMO asserts that the "sensing a vacuum" in step (e) is accomplished by the "control unit having a vacuum sensor," as recited in the preamble, and that the "variably controlling, in response to a sensed vacuum level, ... the ultrasonic power" in step (f) is accomplished by the "control unit having a vacuum sensor for controlling the ultrasonic power" also recited in the preamble. (*Id*. at 24.) AMO asserts

that the preamble indicates the source of the "sensing" and "variably controlling" limitations in steps (e) and (f) and that ignoring the source as revealed in the preamble will greatly alter the patent drafter's intended claim scope. (D.I. 138 at 15.) AMO further argues that interpreting the preamble in this claim is best analogized to the Federal Circuit's decision in *Eaton,* where it found the preamble of a method claim to be limiting. (D.I. 192 at 27.) Additionally, AMO offers proposed constructions of each term in the preamble that it believes requires construction, including "phacoemulsification," "method for operating," "source of ultrasonic power," and "control unit." (D.I. 138 at 17.)

Alcon argues that the preamble is not limiting because it does not recite essential structure or steps or "add life, meaning and vitality" to the claim. (D.I. 171 at 27 (citing Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc., 289 F.3d 801, 808 (Fed.Cir.2002)).) Alcon also attempts to distinguish *Eaton,* arguing that the rationale used by the Federal Circuit to find the preamble limiting in that case, does not apply to the preamble of claim 1 in this case. (D.I. 187 at 19-20.) Although Alcon only offers a proposed construction for "control unit" as recited in the preamble and body of the claim, and "providing ultrasonic power" as recited in the body of the claim, Alcon argues that "AMO's overly restrictive reading of the terms found in the preamble is not supported by the intrinsic evidence, and therefore, is improper." (D.I. 171 at 27, 29-31.)

ii. The Court's Construction

[10] [11] A preamble is only limiting where "it recites essential structure or steps, or if it is necessary to give 'life, meaning, and vitality' to the claims." Intertool, Ltd. v. Texar Corp., 369 F.3d 1289, 1295 (Fed.Cir.2004) (internal quotations and citations omitted). If deletion of the preamble "does not affect the structure or steps of the invention," it should not be considered limiting unless there is "clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art." *Id.* (internal quotations and citations omitted).

[12] In this claim, the preamble's deletion would affect "the steps of the invention" and therefore the preamble is limiting. *Id.* The Federal Circuit's opinion in *Eaton* makes this conclusion clear. First, claim 14 in *Eaton* was a method claim, as is claim 1 in this case. Eaton, 323 F.3d at 1339. Second, the claim body in *Eaton,* referred back to structure identified in the preamble. *Id.* Here, there are several terms in the body which are based on structures identified in the preamble. Notably, step (a) refers to "the handpiece," step (b) refers to "the irrigation fluid source," step (c) refers to "the ultrasonic power source," step (d) refers to "the vacuum source," step (e) refers to "the handpiece," and step (f) refers to "the handpiece" as well, all of which are references to items identified in the preamble. ('240 patent, col. 7, ll. 40-57.) Third, the body of the claim does not set out the complete invention and as such, the language of the preamble is not superfluous. Specifically, the language of step (f) states "variably controlling, in response to a sensed vacuum level in the handpiece ... the ultrasonic power being provided to the handpiece." (Id., col. 7, ll. 54-57.) The preamble specifically refers to "a control unit having a vacuum sensor for controlling ultrasonic power to the handpiece...." (Id., col. 7, ll. 36-37.) It is clear that the function described in step (f) is being performed by the vacuum sensor described in the preamble. Further, step (f) is linked to step (e), in that step (f) refers to "a sensed vacuum level" and step (e) describes "sensing a vacuum level." Thus, step (e) is also linked to the structure of the vacuum sensor identified in the preamble. As in *Eaton,* these method steps require the particular structures identified in the preamble alone. Eaton, 323 F.3d at 1340. Therefore, claim 1 "is an example of the claim drafter choosing to use both the preamble and the body to define the subject matter of the claimed invention, ... as opposed to a preamble reciting an intended use for an invention that is defined in its entirety by the body of the claim." *Id.* (internal citations and quotations omitted).

Because the preamble is limiting, I must construe the disputed terms in it. First, "phacoemulsification" is well known in the art and, as such, does not require construction. Second, "method of operating" is an understood term of claim drafting and likewise does not require construction. Third, "source of ultrasonic power" does not require construction because it is plain on its face: it is a source of ultrasonic power.

Fourth, for the reasons set forth in my analysis of claim 5, *infra* Part IV.A.3.b.ii., I have construed "control unit" to mean "electronics that receive and process electrical input signals and generate electrical output signals," and that construction applies to the term as used here as well.

b. "placing the handpiece in an operative relationship with an eye for a phacoemulsification **procedure"**

i. The Parties' Proposed Constructions

AMO first proposed that I construe an "operative relation with an eye" to mean "when it [,the handpiece,] is inserted into a corneal incision in an eye." (D.I. 164 at 8, Joint Claim Construction Chart.) Alcon proposed that this term did not require interpretation, but if I were to construe it, it should "not be limited to a particular type of incision." (*Id*.) Thereafter, AMO offered what it called a compromise construction, that did not limit the term to a particular type of incision. (D.I. 192 at 28.) Thus, AMO proposes that I construe in an "operative relation with an eye" to mean "when it is inserted into an incision in an eye." (*Id*.)

ii. The Court's Construction

[13] As apparently agreed to by the parties, and supported by the specification ('240 patent, col. 1, ll. 25-32), I construe "placing the handpiece in an operative relationship with an eye for a phacoemulsification procedure" to mean that the handpiece is placed in an operative relationship with an eye, "when it is inserted into an incision in an eye."

c. "providing ultrasonic power from the ultrasonic power source to the handpiece for performing the phacoemulsification **procedure"**

i. The Parties' Proposed Constructions

AMO proposes that I construe "providing ultrasonic power from the ultrasonic power source to the handpiece for performing the phacoemulsification procedure" to mean "the delivery of power from the ultrasonic power source to the handpiece over, for example, an electrical cable in response to a control signal from the control unit." (D.I. 164 at 8.) Further, AMO asserts that "providing ultrasonic power" requires that "some usable amount of ultrasonic power be supplied, i.e., a tangible, non-zero, level." (D.I. 138 at 19.) AMO argues that this language, set forth in step (c) of claim 1, corresponds to the block in Figure 3 of the '240 patent designated as "RUN NORMAL PWR FUNCTION" and, therefore, that "the level of ultrasonic power being provided is at some tangible, non-zero level referred to ... as "Normal Power." " (Id. at 20.) Alcon asserts that no construction is required, but that if I were to construe the term, it should not be limited to using "an electrical cable in response to a control signal from the control unit." (D.I. 171 at 29-30.) Further, Alcon does not dispute that "the method of claim 1 requires that the operator of the phacoemulsificiation machine provide ultrasonic power to the handpiece above a zero power level at some point." (D.I. 187 at 9.) Alcon, however, disputes "that providing ultrasonic power above a zero power level must occur *before* steps (e) or (f) can be taken." (Id. (emphasis in original).)

ii. The Court's Construction

I do not believe that this claim term requires construction, much less the construction proposed by AMO. "Providing ultrasonic power from the ultrasonic power source to the handpiece for performing the phacoemulsification procedure" means what is says: "providing ultrasonic power to the handpiece." Obviously, the ultrasonic power comes from the ultrasonic power source. No other construction is required to understand this term as used in claim 1.

d. "aspirating"

Although initially AMO and Alcon disagreed as to the construction of this term, during the *Markman* hearing, Alcon essentially agreed with AMO that the term "aspirating" means "removing fluid by the application of reduced pressure or vaccum." (D.I. 214 at 42:22-43:3, Transcript of *Markman* hearing, Dec. 20, 2004.) Thus, as this claim term is no longer in dispute, there is no need for me to construe it any further.

e. "occluded condition"

i. The Parties' Proposed Constructions

AMO proposes that I construe "occluded condition" to mean "the restriction of fluid flow through the handpiece." (D.I. 164 at 9.) Alcon proposes that I construe "occluded condition" to mean "any restriction that would cause a corresponding vacuum rise in the aspiration line." (*Id.;* D.I. 187 at 16.)

ii. The Court's Construction

[14] I construe "occluded condition" to mean "a restriction of fluid flow in the aspiration line." Both parties realize that the term means a restriction. (D.I. 164 at 9.) The difference in the parties' proposed constructions is whether there is a particular place that the restriction must occur. AMO asserts that the restriction must be in the handpiece (*id.*), while Alcon asserts that the restriction may be "at the tip of the handpiece, inside the handpiece, or behind the handpiece" (D.I. 187 at 16). AMO's construction, however, is unduly repetitive because in each instance where the term "occluded condition" is used in the claims, the subsequent claim language makes clear that the occluded condition being referred to is that "of the handpiece." Claim 1, step (e) states, "... corresponding to an occluded condition of the handpiece." ('240 patent, col. 7, ll. 52-53.) Claim 1, step (f) states, "... corresponding to the occluded condition of the handpiece." (Id., col. 7, ll. 55-56.) Similarly, claim 3 also states "corresponding to the occluded condition of the handpiece." (Id., col. 8, ll. 1-2.) Thus, AMO's construction would have the claim language read "corresponding to the [restriction of fluid flow through the handpiece] of the handpiece." Because of this redundancy, AMO's construction requiring that the restriction occur in the handpiece is illogical and unnecessary.

f. "sensing a vacuum level in the handpiece corresponding to an occluded condition of the handpiece"

i. The Parties' Proposed Constructions

AMO proposes that I construe "sensing a vacuum level in the handpiece corresponding to an occluded condition of the handpiece" to mean "the vacuum level detected by the vacuum sensor of the control unit identified in the preamble which is positioned such that the vacuum it detects is indicative of the vacuum in the handpiece." (D.I. 164 at 9.) Further, AMO initially proposed that the "vacuum level the control unit has sensed 'corresponds' if it matches or exceeds the vacuum level the control unit is programmed to recognize as indicating an obstruction of the aspiration fluid flow through the handpiece." (Id.)

Alcon proposes that I construe "sensing a vacuum level in the handpiece corresponding to an occluded condition of the handpiece" to mean to "sense, detect or perceive the vacuum level in any manner." (Id.) Further, Alcon initially proposed that "corresponds to" refers to "any restriction that would cause a corresponding vacuum rise in the aspiration line." (Id.) At the *Markman* hearing, however, the parties agreed that the term "corresponds to" means "a rise in the vacuum of the aspiration line that reaches a particular numeric value ... [which] is equal to the vacuum that exists in the aspiration line when the doctor believes he is going to have an occlusion issue." (D.I. 214 at 41:20-42:5, Transcript of *Markman* hearing, Dec. 20, 2004.)

ii. The Court's Construction

[15] Because of the parties' agreement on the meaning of the "corresponding to" portion of this claim term,

I need only construe the "sensing a vacuum level in the handpiece" portion of the claim term at issue. The focus of the parties' dispute regarding the "sensing a vacuum level in the handpiece" term is whether the "sensing" can be accomplished in any manner, including by a human, as argued by Alcon, or whether the "sensing" must be performed by the vacuum sensor identified in the preamble, as argued by AMO. AMO's position is essentially that this step of the claim is limited to automated means because the term has its antecedent basis in the vacuum sensor recited in the preamble, which performs the automated function of sensing the vacuum described in the body of the claim. (D.I. 192 at 37-38.)

I agree with AMO. In addition to the reasons cited by AMO, the claim language supports this construction. Step (f) refers to step (e)'s "sensed vacuum level" and the preamble states that "a control unit having a vacuum sensor ... control[s][the] ultrasonic power." Thus, it is clear that it is the control unit's vacuum sensor which performs the sensing, not a human, and that, in response, the control unit "variably control[s] ... the ultrasonic power being provided to the handpiece" as described in step (f).

Moreover, the specification supports this interpretation. The title of the invention is "Phacoemulsification system having ultrasonic power controlled by aspiration vacuum sensor." This language again reiterates that it is the vacuum sensor which controls the ultrasonic power. Also, the specification describes the state of the art in the field of this invention in columns 1 and 2 and specifically discloses prior patents on manually-controlled-power phacoemulsification systems. This background discussion of manual systems of control further supports AMO's assertion that the invention is limited to the automatic control aspect described in steps (e) and (f) of claim 1.

The prosecution history also supports this conclusion. The examiner stated that his reason for allowance was that "[t]he prior art of record does not anticipate or render obvious a phacoemulsification system having [a] pressure sensor that controls the delivery of power to the instrument by a control unit or the method of use thereof." (D.I. 152, Ex. 13 at A0564, Examiner's Notice of Allowability at 2, May 28, 1997.) Thus, the examiner apparently understood one of unique aspects of this invention to be that of automated control.

For these reasons, I construe "sensing a vacuum level in the handpiece" to mean "the vacuum level detected by the vacuum sensor of the control unit identified in the preamble which is positioned such that the vacuum it detects is indicative of the vacuum in the handpiece."

g. "variably controlling, in response to a sensed vacuum level in the handpiece corresponding to the occluded condition of the handpiece, the ultrasonic power being provided to the handpiece"

i. The Parties' Proposed Constructions

AMO proposes that I construe "variably controlling" to mean "the ability of the control unit to alter the amount of power being provided by the ultrasonic power source in some fashion other than merely enabling the power (turning power on) or disabling the power (turning off)." (D.I. 164 at 10.) AMO further proposes that I construe "in response to a sensed vacuum level in the handpiece corresponding to the occluded condition of the handpiece" to mean "that the control unit alters the amount of power being delivered to the handpiece when it receives a reading from the vacuum sensor that it indicates an occluded condition." (*Id.*) Alcon proposes that I construe "variably controlling in response to a sensed vacuum level" to mean "to alter or change, including automatically or manually, the ultrasonic power." FN3 (*Id.*)

FN3. During the *Markman* hearing, Alcon included in their slide presentation to the court a demonstrative exhibit in which Alcon asserts that the applicant for the '240 patent acquiesced in the examiner's interpretation that the term "varying" includes turning on and off. (*See* slide '240-50, Alcon's submitted copy of slides presented during the *Markman* hearing, Dec. 20, 2004). Alcon, however, made no reference to such assertion in its extensive briefing on the construction of the term "varying" as used in the claims of

the '240 patent, despite the disparity between the parties' proposed constructions. (*See* D.I. 171 at 31-33, 35; D.I. 187 at 16-18.) Thus, AMO has not had a fair opportunity to respond. Even considering Alcon's assertion, in the context of the claim language, see my discussion, infra Part IV.A.1.g.ii., it is clear that the term "variably controlling" in step (f) of claim 1, was intended to refer to the ability to change the ultrasonic power level from one real level of power to another.

ii. The Court's Construction

[16] There are two main disputes between the parties with regard to this claim term. The first, is whether this step, step (f), can be performed manually as well as automatically, and the second is whether the "variably controlling" term includes turning the power on or off, as opposed to only adjusting the power level once on. For the same reasons described *supra* Part IV.A.1.f.ii., I construe this term to be limited to automatic means. Additionally, for the reasons that follow, I construe this term to exclude merely turning the power on or off.

I begin with the language of the claim term itself. The parties agree that the term "variably" is the adverb form of "variable" which means "changeable." (D.I. 171 at 31; D.I. 192 at 34.) The claim term states "variably controlling ... the ultrasonic power *being provided* to the handpiece." ('240 patent, col. 7, ll. 56-57 (emphasis added).) Because the term describes varying the power that is being provided, this necessarily implies that power is already being provided, i.e. turned on. Thus, this term would not include turning the power on. A sense of symetry in construction and of logical extension indicates that this term would not includeturning the power off. Therefore, consistent with the "corresponding to" term agreed to by the parties, *see supra* Part IV.A.1.f.i., I construe "variably controlling, in response to a sensed vacuum level in the handpiece corresponding to the occluded condition of the handpiece, the ultrasonic power being provided to the handpiece" to mean "the ability of the control unit to automatically change the amount of ultrasonic power, other than merely turning it on or off, being provided to the handpiece in response to a signal from the vacuum sensor indicating that a sensed rise in the vacuum of the aspiration line has reached a particular numeric value which is equal to the vacuum that exists in the aspiration line when the doctor believes he is going to have an occlusion issue."

2. Claim 3

Claim 3 of the '240 patent is as follows:

The operating method as claimed in claim 1, wherein the variably controlling step comprises decreasing the ultrasonic power being provided to the handpiece, in response to sensed vacuum level in the handpiece, corresponding to the occluded condition of the handpiece.

('240 patent, col. 7 l. 6-col. 8, l. 2.)

a. "wherein the variably controlling step comprises decreasing the ultrasonic power being provided to the handpiece"

i. The Parties' Proposed Constructions

AMO proposes that I construe "variably controlling" to mean that "the control unit variably controls the power being delivered by the ultrasonic power source to the handpiece from the power level being delivered prior to the detection of an occluded condition to a lesser power level." (D.I. 164 at 11; D.I. 138 at 24.) Alcon proposes that I need not construe this term, but that if I do, it should be interpreted to include turning the power off. (D.I. 164 at 11; D.I. 187 at 16-17.)

ii. The Court's Construction

Consistent with my interpretation of the term "variably controlling" in step (f) of claim 1, and for the same reasons indicated *supra* Part IV.A.1.g.ii., I construe "the variably controlling step" to mean "the ability of the control unit to automatically decrease, other than merely turning off, the amount of ultrasonic power being provided to the handpiece in response to a signal from the vacuum sensor indicating that a sensed rise in the vacuum of the aspiration line has reached a particular numeric value which is equal to the vacuum that exists in the aspiration line when the doctor believes he is going to have an occlusion issue."

3. Claim 5

Claim 5 of the '240 patent is as follows:

Phacoemulsification apparatus which comprises:

a phacoemulsification handpiece;

means for providing irrigation fluid to the handpiece;

a variable speed pump connected in fluid communication with said handpiece for aspirating, by vacuum, irrigation fluid from said handpiece;

a power source connected for providing ultrasonic power to said handpiece;

a sensor connected in fluid communication with said handpiece for sending vacuum levels in said handpiece; an [sic]

a control unit, responsive to the sensed vacuum levels in said handpiece, for varying the ultrasonic power level provided to said handpiece by said power source.

('240 patent, col. 8, ll. 17-33 (emphasis added).)

a. "sending vacuum levels in said handpiece"

i. The Parties' Proposed Constructions

AMO proposes that I find that the term "sending" is a typographical error, that it was intended to read "sensing," and that I have the power to correct such error according to Novo Indus., L.P. v. Micro Molds Corp., 350 F.3d 1348 (Fed.Cir.2003) (" *Novo* "). (D.I. 164 at 11; D.I. 192 at 38-40.) Further, AMO argues that, should I correct the term to read "sensing," no further construction is required. (D.I. 164 at 11.) Alcon proposes that I find that the term "sending vacuum levels in said handpiece" is indefinite because "[t]here is no plain meaning of the term 'sending a vacuum' to a person of ordinary skill in the art....' " (D.I. 171 at 35; D.I. 164 at 11.) Further, Alcon proposes that if I determine that the term was a typographical error, I should construe "sensing" according to its ordinary and plain meaning, "to sense, detect, or perceive a vacuum level." (D.I. 164 at 11.)

ii. The Court's Construction

[17] [18] I conclude that the term "sending" is a typographical error. Under *Novo,* I have the power to retroactively correct that error. In the *Novo* case, the Federal Circuit acknowledged the Supreme Court's holding that, "in a patent infringement suit, the courts could properly interpret a patent to correct an obvious error." Novo, 350 F.3d 1348, 1354 (Fed.Cir.2003) (citing I.T.S. Rubber Co. v. Essex Rubber Co., 272 U.S.

429, 47 S.Ct. 136, 71 L.Ed. 335 (1926) (" *I.T.S.Rubber* ")). The Federal Circuit also considered the effect of 35 U.S.C. s.s. 254 and 255 on the district court's power to correct a patent,FN4 and it established a two part test to determine whether a district court could correct a patent: "A district court can correct a patent only if (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims." Novo, 350 F.3d at 1357.

FN4. 35 U.S.C. s.s. 254 and 255 permit the Director of the Patent and Trademark Office to issue certificates of correction to correct issued patents under certain circumstances.

The first prong of *Novo* is satisfied because there is no reasonable debate based on the claim language and specification that the term "sending" is a typographical error and that the intended term was "sensing." As drafted, "claim 5 recites an apparatus which comprises a sensor ... for *sending* vacuum levels in said handpiece...." ('240 patent, col. 8, ll. 27-28 (emphasis added).) It is undisputed that the "sensor" does not "send" vacuum levels, rather, it "senses" vacuum levels. (D.I. 171 at 35; D.I. 187 at 21.) Also, the next element of claim 5 is "a control unit, responsive to *the sensed vacuum levels* in said handpiece...." ('240 patent, col. 8, ll. 30-31 (emphasis added).) The term "sensed vacuum levels" in this portion of the claim is clearly referring back to the "sensed vacuum levels" previously discussed because the drafter chose the word "the" and used the past tense of "sense," indicating that the step of sensing has already occurred. (*See* D.I. 192 at 39.) The only place where the sensing could have occurred is in the portion of the claim that AMO asserts is a typographical error. Alcon does not dispute any of these bases for finding that "sending" is a typographical error and "sensing" is the word intended. Furthermore, the specification, as argued by Alcon, "do[es] not reveal a meaning [for the term sending] as used in the context of the claim." (D.I. 171 at 25.) Thus, there can be no reasonable debate that the term "sending" is a typographical error and that the intended term is "sensing."

The second prong of *Novo* is also satisfied because "there is no indication in the prosecution history that this term was ever misunderstood or misapplied by either the [e]xaminer or the applicant." (D.I. 192 at 40.) The entire claim limitation of which the term "sending" was a part, "had never been an issue throughout the prosecution." (*Id.*) Alcon does not assert any argument to the contrary. (*See* D.I. 171 at 35; D.I. 187 at 21.) Thus, I find that, under the *Novo* test, the term "sending" is a typographical error and should be construed to mean "sensing." Further, I conclude that the term, read as "sensing" means "detecting."

b. "a control unit, responsive to the sensed vacuum level in said handpiece"

i. The Parties' Proposed Constructions

AMO proposes that I construe "a control unit" to mean "a piece of electronics that receives and processes electrical input signalsand generates electrical output signals. Among the input signals the control unit receives are vacuum levels detected by the sensor that indicate the vacuum levels in the handpiece. In response to these vacuum level inputs, the control unit varies the power delivered by the power source to the handpiece." (D.I. 164 at 11; D.I. 138 at 28.) Alcon proposes that I construe "a control unit" only to the extent that it means a control unit which "includes electronics that receive and process electrical input signals and generate electrical output signals." (D.I. 164 at 11; D.I. 171 at 30.)

ii. The Court's Construction

[19] The parties essentially agree that "a control unit" contains electronics that receive and process electrical input signals and generate electrical output signals. (D.I. 164 at 11.) That construction is adequate to explain the meaning of "control unit" in the context of claim 5 and claim 1, *see supra* Part IV.A.1.a.ii. The latter portion of AMO's proposed construction is overly restrictive because it only describes one type of electrical

signal received by the control unit. Thus, I construe "a control unit" to mean "electronics that receive and process electrical input signals and generate electrical output signals."

c. "varying the ultrasonic power"

i. The Parties' Proposed Constructions

In proposing constructions for this term, the parties essentially adopt their proposed constructions for the "variably controlling ... the ultrasonic power being provided to the handpiece" limitation set forth in claim 1. (*See* D.I. 171 at 33; D.I. 138 at 29.) AMO proposes that I construe "varying the ultrasonic power" to mean "to make or cause changes in the attributes of the power," but not to include enabling or disabling the power source. (D.I. 164 at 12.) Alcon proposes that I construe "varying the ultrasonic power" to mean "that the control unit be capable of altering or changing the ultrasonic power," and does not require that the control unit automatically vary the ultrasonic power. (*Id.;* D.I. 171 at 33.)

ii. The Court's Construction

The term "varying the ultrasonic power" in claim 5 should be construed consistently with the term "variably controlling ... the ultrasonic power" in claim 1. Thus, for essentially the same reasons stated in Part IV.A.1.g.ii. *supra,* and for consistency in the construction of claim terms, I construe "varying the ultrasonic power" to mean "the ability of the control unit to automatically change the amount of ultrasonic power, other than merely turning it on or off."

4. Claim 6

Claim 6 of the '240 patent is as follows:

The phacoemulsification apparatus as claimed in claim 5, wherein said control unit is responsive to the sensed vacuum levels in said handpiece for varying a pulse duty cycle of the ultrasonic power provided to said handpiece by the power source.

('240 patent, col. 8, ll. 33-37.)

a. "varying a pulse duty cycle of the ultrasonic power provided to said handpiece by the power source"

i. The Parties' Proposed Constructions

Again, in proposing constructions for the term "varying," the parties essentially adopt their proposed constructions for the "variably controlling ... the ultrasonic power being provided to the handpiece" limitation set forth in claim 1. (*See* D.I. 171 at 35-36; D.I. 187 at 16-17; D.I. 138 at 29-30; D.I. 192 at 40.) In addition, AMO proposes that the term "pulse" be construed to mean "a short application of power to the handpiece, with no power supplied immediately before or after the pulse" and that the term "pulse duty cycle" be construed as "a measure of the power being delivered to the handpiece in a mode in which power is provided in a series of regular pulses." (D.I. 164 at 12; D.I. 138 at 29-30.) Alcon again reiterates its position that "varying" not be limited to automatic control by the control unit, and that the pulse duty cycle may vary within its range of 0% to 100%. (D.I. 164 at 12.)

ii. The Court's Construction

[20] [21] Again, the term "varying a pulse duty cycle" in claim 6 should be construed consistently with the term "variably controlling ... the ultrasonic power" in claim 1. Thus, for essentially the same reasons stated

in Part IV.A.1.g.ii. *supra,* and for consistency in the construction of claim terms, I construe "varying" to mean "the ability of the control unit to automatically change the amount of ultrasonic power, other than merely turning it on or off." Because Alcon does not dispute the meaning of "pulse" or "pulse duty cycle" as proposed by AMO, and because AMO's proposed constructions are consistent with the plain and ordinary meaning of the terms as used in the specification, I will adopt AMO's proposed constructions. Thus, I construe the term "pulse" to mean "a short application of power to the handpiece, with no power supplied immediately before or after the pulse" and "pulse duty cycle" to mean "a measure of the power being delivered to the handpiece in a mode in which power is provided in a series of regular pulses."

B. The '765 Patent

1. Claim 1

Claim 1 of the '765 patent is as follows:

Fluid management apparatus for a surgical instrument having fluid irrigation and aspiration lines, said fluid management apparatus comprising:

a console having an aspiration pump;

a housing having a longitudinal axis;

a chamber, disposed in said housing, having an aspiration fluid inlet and an aspiration fluid outlet, the outlet being disposed along the housing longitudinal axis and connected to said aspiration pump; and

means for preventing accumulation of gas, generated in or introduced into the chamber, in said chamber, said means for preventing accumulation of gas comprises:

means, disposed in said console, for engaging and holding said housing to the console with the longitudinal axis in a generally vertical orientation with the fluid outlet disposed below the pump; and

chamber shape means for directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet.

('765 patent, col. 4 l. 59-col. 5 l. 10.)

a. "aspiration pump"

i. The Parties' Proposed Constructions

AMO proposes that I construe "aspiration pump" to mean "a pump that removes fluid by creating a reduced pressure (i.e., a vacuum) to that fluid." (D.I. 164 at 1; D.I. 138 at 30.) Alcon initially proposed that I did not need to construe this term (D.I. 164 at 1), but during the *Markman* hearing agreed with AMO that "aspiration" means "removing of fluid by application of reduced pressure or vacuum." (D.I. 214 at 42:22-25, Transcript of *Markman* hearing, Dec. 20, 2004.)

ii. The Court's Construction

[22] Because the parties have agreed that "aspiration" means removing fluid by the creation or application of a reduced pressure or vacuum to that fluid, I do not consider the term "aspiration" to be in dispute. In addition, the term "pump" has a plain and ordinary meaning that is clearly understood and not contradicted in the specification and, as such, does not require further construction. Thus, I construe the term "aspiration

pump" to mean "a pump that removes fluid by creating or applying a reduced pressure (or vacuum) to that fluid."

b. "chamber"

i. The Parties' Proposed Constructions

AMO proposes that I construe the term "chamber" to mean an "enclosed or compartmented space designed for some special purpose." (D.I. 164 at 1; D.I. 138 at 31.) AMO further proposes that "[a] chamber is not a mere passage or conduit." (*Id.*) Alcon asserts that the term "chamber" does not require construction, but that if I do construe it, I should construe "chamber" to mean only an "enclosed or compartmented space." (D.I. 164 at 1; D.I. 171 at 15.)

ii. The Court's Construction

[23] I agree with both AMO and Alcon that the plain and ordinary meaning of the term "chamber" is "an enclosed or compartmented space." AMO further asserts that a chamber is not a mere passage or conduit. AMO's desire for me to include this latter portion of its construction evidently springs from its belief that "Alcon ... intends to argue that parts of prior art devices have 'chambers' because those devices have tubular fluid pathways within a hard plastic device." (D.I. 192 at 5.) My decision not to include this additional language is not meant as a prejudgment or comment on any arguments the parties may raise in regard to validity issues. Although the plain and ordinary meaning of chamber does not, by explicit language, exclude passages, one of ordinary skill in the art may understand them to be different. Thus, I construe "chamber" to mean "an enclosed or compartmented space."

c. "disposed along the housing longitudinal axis"

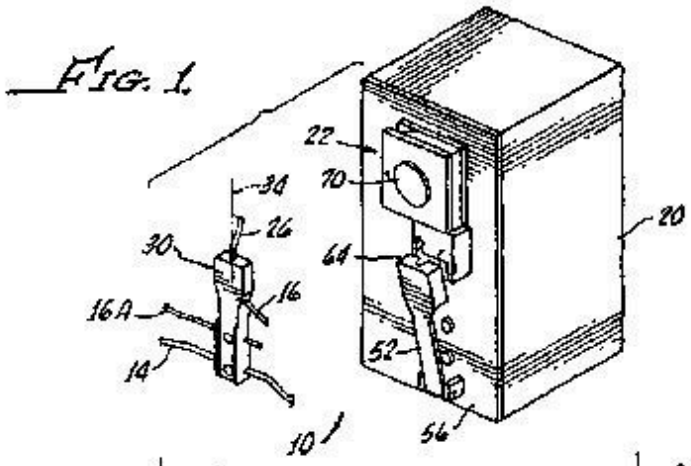
i. The Parties' Proposed Constructions

The parties agree that "the housing longitudinal axis" should be construed to mean "the lengthwise centerline of the housing" and that the term "disposed" should be construed to mean "placed." (D.I. 164 at 2.) The parties dispute, however, the meaning of the term "along."

Initially, AMO proposed that I construe "along" to mean "beside or on a line parallel to," thus construing the entire claim element to mean "placed beside or on a line parallel to the lengthwise centerline of the housing." (*Id.;* D.I. 138 at 31.) Later, AMO accepted Alcon's suggestion that the full plain and ordinary meaning of the term "along," means "to be placed through, on, over, or continuously beside or on a line or course parallel and close to." (D.I. 192 at 7.) Alcon, however, does not propose that I accept what even it has offered as the "plain and ordinary meaning" of "along," but rather that I construe "along" to mean "on." (D.I. 164 at 2.) In support of its narrow construction, Alcon refers to Figures 2 and 3 in the specification, as shown below, depicting the only embodiment disclosing the outlet's position in relation to the lengthwise centerline of the housing, in which the outlet is depicted directly on the lengthwise centerline of the housing.FN5 (D.I. 171 at 16.)

FN5. Figures 1, 2, and 3 are reproduced below. Figures 2 and 3 depict the housing, including the longitudinal axis (34) and the aspiration fluid outlet (42) and chamber (36).

***388**



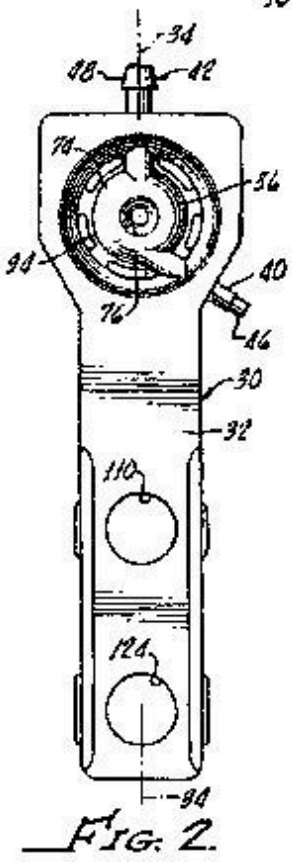


FIG. 2.

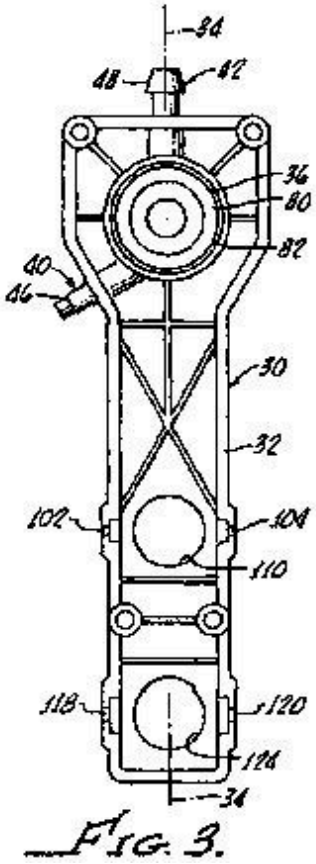


FIG. 3.

Alcon thus proposes that I construe "disposed along" to mean "placed on," such that the claim element means "placed on the lengthwise centerline of the housing." (D.I. 164 at 2; D.I. 171 at 15.)

AMO asserts that Alcon's limited construction for the term "along" is too narrowbecause it unnecessarily limits what Alcon has admitted to be the plain and ordinary meaning of the term "along" to only part of that meaning based on the disclosure in the specification. (*See* D.I. 192 at 6-8.) Thus, AMO argues that Alcon's proposed construction "would impermissibly import a narrowing limitation from the specification to the claims." (*Id*. at 7 (internal quotation and citations omitted).)

Alcon asserts that a person of ordinary skill in the art would look to the specification as a source to determine the meaning of the term. (D.I. 171 at 15 (citing Toro Co. v. White Consol. Indus., Inc., 199 F.3d 1295, 1299, 1301 (Fed.Cir.1999)).) Alcon correctly notes that the only embodiment disclosed in the patent is shown in Figures 2 and 3 and illustrates that the outlet (42) is placed directly on the longitudinal axis (34), which the parties agree is "the lengthwise centerline of the housing." (*Id.* at 16.) Alcon also asserts that if I were to accept AMO's initially proposed construction for "along," "arranged or placed beside or on a line parallel to the lengthwise centerline of the housing," the construction would improperly exclude the only embodiment disclosed in the specification because AMO's proposed construction did not include that "along" could mean "on." (D.I. 192 at 25-27.) In addition, Alcon argues that if I were to accept AMO's later proposal, to construe "along" to mean "continuously beside or on a line or course parallel and close to," the term would be indefinite because there would be no limit to the allowable distance that would be considered "close to" the lengthwise centerline of the housing. (*Id.* at 26.)

In response, AMO asserts that Alcon's indefiniteness argument is not supported in the case law,FN6 that "one of ordinary skill in the art would understand that if the chamber outlet is 'along' the axis it must be in proximity to the axis," and that the chamber and its outlet must be placed in the housing and connected to the aspiration pump, which provide "a specific limit to how far away from the housing longitudinal axis it could be." (D.I. 192 at 8.) AMO relies on the Federal Circuit's opinion in TI Group Automotive Systems (North America), Inc. v. VDO North America, LLC (" TI Group "), 375 F.3d 1126 (Fed.Cir.2004), for its legal argument that the "presumption that the ordinary meaning of a term applies may not be rebutted simply by pointing to the preferred embodiment disclosed in the patent." (D.I. 192 at 6 (citing TI Group, 375 F.3d at 1136).) Alcon attempts to distinguish *TI Group,* by pointing to the Federal Circuit's observation that the patentee was "entitled to the full breadth of claim scope supported by the words of the claims and the written description," 375 F.3d at 1138, and arguing that "the written description [in that case] provided independent support for the meaning asserted." (D.I. 187 at 28.) Alcon further argues that "[u]nlike the *TI Group* case, in this case, nothing in the written description supports a construction that would permit the outlet be placed anywhere other than on the lengthwise centerline of the housing." (*Id.*)

FN6. AMO relies on Verve LLC v. Crane Cams, Inc., 311 F.3d 1116, 1119-1120 (Fed.Cir.2002) and Andrew Corp. v. Gabriel Elecs., Inc., 847 F.2d 819, 821-22 (Fed.Cir.1988) to support its position. (D.I. 192 at 8.)

ii. The Court's Construction

[24] There is a heavy presumption that the patent inventors intended the ordinary meaning of a term to apply. *See* Teleflex, 299 F.3d at 1325. Alcon admits that the ordinary meaning of "disposed along" is "to be placed through, on, over, or continuously beside or on a line or course parallel and close to." (D.I. 171 at 16.) AMO agrees that the term "along," "implies some degree of proximity or closeness" and accepts Alcon's version of the plain and ordinary meaning of the term, even though AMO repeats the definition without explicitly including the "close to" language. (D.I. 192 at 7.) AMO, however, apparently accepts that portion of the construction of "along," because the construction it initially proposed, included the words "close to." (*See* D.I. 164 at 2 (AMO proposed that the term "along" be construed to mean "continuously beside or on a line or course parallel and *close to*.")) Thus, both parties apparently accept that the full plain and ordinary meaning of the term "along" is "to be placed through, on, over, or continuously beside or on a line or course parallel and close to." (*See* D.I. 171 at 16; D.I. 164 at 2; D.I. 192 at 7.)

The Federal Circuit in *TI Group* was presented with a similar issue. See, 375 F.3d at 1135-36. The plaintiff in that case argued for a broader construction of the term "within" while the defendant proposed a narrower construction for that term. *Id.* The defendant asserted that the structures illustrated in the drawings of the written description supported the narrower construction and that no structure supported the broader

definition proposed by the plaintiff. *Id*. at 1136. In response, the Federal Circuit reiterated the rule that "the mere fact that the patent drawings depict a particular embodiment of the patent does not operate to limit the claims to that specific configuration." *Id*. (quoting Anchor Wall Sys. v. Rockwood Retaining Walls, Inc., 340 F.3d 1298, 1306-07 (Fed.Cir.2003) (citing Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc., 222 F.3d 951, 956 (Fed.Cir.2000))). The court continued, "[t]he drawings, without more, are insufficient to cabin the scope of the ordinary and customary meaning of the term ... in this case." *Id*. Thus, that the figures in the written description depict only one embodiment showing the outlet placed on the housing longitudinal axis, does not, in and of itself, narrow the scope of the ordinary and customary meaning of the term.

Alcon also cites to the Federal Circuit's construction of another claim term in that same case to argue that the written description there affirmatively supported a broader construction of the disputed claim term, whereas the specification in this case does not. (D.I. 187 at 28.) A full reading of the Federal Circuit's opinion, however, reveals that the court placed the burden on the defendant to find evidence in the written description that the claim term should be limited to a more narrow construction than its plain and ordinary meaning would suggest. TI Group, 375 F.3d at 1138 (the plaintiff "is entitled to the full breadth of claim scope supported by the words of the claims and the written description. [Defendant's] argument again focuses on a single, narrow dictionary definition, when many equally apt, and broader, definitions are also provided. The written description does not restrict the ordinary and customary meaning of [the claim term] in any respect. Therefore, we conclude that the [claim term] is not restricted [to the narrow construction argued by the defendant.]"). Since, in this case, Alcon has not pointed to any such evidence, I construe "along" to mean "to be placed through, on, over, or continuously beside or on a line or course parallel and close to." Thus, the claim element "disposed along the housing longitudinal axis" means "to be placed through, on, over, or continuously beside or on a line or course parallel and close to the lengthwise centerline of the housing." I do not, however, pass judgment on Alcon's argument that the construction I have adopted renders the claim indefinite, except to note that there is a factual dispute regarding this issue that is not pertinent to the construction of this claim term.

d. "means for preventing accumulation of gas, generated in or introduced into the chamber, in said chamber, said means for preventing accumulation of gas comprises"

i. The Parties' Proposed Constructions

AMO asserts that this claim element is not a means-plus-function limitation and that I should construe each of the sub-limitations of the term. (D.I. 164 at 2; D.I. 138 at 32.) Alcon argues that this claim element is indeed a means-plus-function limitation, the function being preventing the accumulation of gas generated or introduced into the chamber and the corresponding structure being the frame in combination with the console and housing. (D.I. 164 at 2.) Further, Alcon asserts that "[a]ny confusion or redundancy [in construing the sub-limitations of the term] is the product of the claim itself...." (D.I. 187 at 29.)

ii. The Court's Construction

[25] [26] The patent statute allows for a claim limitation to be drafted in means-plus-function format. 35 U.S.C. s. 112 para. 6.FN7 A means-plus-function claim recites a function to be performed rather than a definite structure or the materials required to perform that function. *See id*. Such a claim limitation is typically identified by the presence of the introductory term "means," Micro Chem., Inc. v. Great Plains Chem. Co., Inc., 194 F.3d 1250, 1257 (Fed.Cir.1999), which creates a presumption that section 112, paragraph 6 applies. York Prods., Inc. v. Cent. Tractor Farm & Family Center, 99 F.3d 1568, 1574 (Fed.Cir.1996). That presumption is rebuttable, however, "where a claim uses the word 'means,' but specifies no corresponding function for the 'means' ... [or] where a claim recites a function, but then goes on to elaborate sufficient structure, material, or acts within the claim itself to perform entirely the recited function...." Sage Prods., Inc. v. Devon Indus., Inc., 126 F.3d 1420, 1427 (Fed.Cir.1997) (internal citations omitted).

FN7. 35 U.S.C. s. 112 para. 6 provides that "[a]n element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

[27] [28] Once a means-plus-function term is identified, its interpretation by the court is a two-step process. Sage Prods., 126 F.3d at 1428. First, the court must identify the function recited by the claim. *See id*. Second, the court must identify the structure(s) in the specification of the patent necessary to perform the recited function. *Id*. Structure, material, or acts are deemed "corresponding" where the "specification or prosecution history clearly links or associates that structure to the function recited in the claim." B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419, 1424 (Fed.Cir.1997). The court, however, "may not import functional limitations that are not recited in the claim, or structural limitations from the written description that are unnecessary to perform the claimed function." Wenger Mfg., Inc. v. Coating Mach. Sys., Inc., 239 F.3d 1225, 1233 (Fed.Cir.2001) (citing Micro Chem., Inc. v. Great Plains Chem. Co., 194 F.3d 1250, 1258 (Fed.Cir.1999)).

[29] This claim element presents the unusual situation of a limitation containing the "means for" language that creates the presumption that section 112, paragraph 6 applies, while also using the term "comprises" to indicate that it is made up of sub-part or sub-limitations. Furthermore, the two sub-parts are themselves drafted in means-plus-function language and the parties agree that they are means-plus-function limitations. (D.I. 164 at 3.) In such a situation, it appears that by construing each sub-limitation and identifying the structures corresponding to the claimed functions, the structures for the claim element currently at issue will have been determined. *See* Cole v. Kimberly-Clark Corp., 102 F.3d 524, 531 (Fed.Cir.1996) (noting that determining whether section 112, paragraph 6 applies is determined on an element-by-element basis). Thus, I will not have to turn to the specification to determine which structures perform the function of "preventing accumulation of gas, generated in or introduced into the chamber, in said chamber" because those structures will have already been identified.

To illustrate, consider this claim element and its sub-limitations as a simple mathematic equation: A = (B + C), where A is the claim element presently at issue, B is one of the sub-limitations, and C is the other sub-limitation. In this equation, A, B, and C, are all unknown, just as the structures corresponding to the claim element and each of its sub-limitations are unknown in the sense that they cannot initially be determined by examining the claim language apart from the specification. In such an equation, adding B and C together will determine the value of A. Thus, for example, once I am told, or determine, that the value of B is 2, and that the value of C is 3, I know that the value of A is 5, without having to be separately told that A corresponds to a value of 5. Similarly, once I have determined the structures corresponding to the functions of the sub-limitations of the claim element at issue, I know that it is those structures which, in combination, perform the claimed function at issue. Thus, I do not have to turn back to the specification again to determine the structures corresponding to the claimed function, because they are already known.

In this case, the parties agree that the frame, hinge mounted to face, latch, and lip structures correspond to the first sub-limitation "means, disposed in said console, for engaging and holding said housing to the console with the longitudinal axis in a generally vertical orientation with the fluid outlet disposed below the pump" and, as is later described, I have determined, *see infra* Part IV.B.1.e.ii., that "a generally circular or toroidal shape" structure corresponds to the second sub-limitation "chamber shape means for directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet." Thus, I am of the opinion that this claim element is best construed as not being a means-plus-function limitation, because once the structures for the sub-limitations are identified, as discussed, and imported into the claim, it is not necessary to look to the specification to determine which structures correspond, because they have already been

identified. I therefore agree with AMO that this limitation does not need independent construction, because the meaning of the claim is clearly understood once its sub-parts are construed.

e. "chamber shape means for directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet"

i. The Parties' Proposed Constructions

The parties agree that this claim element is a means-plus-function limitation. (D.I. 164 at 3.) Further, the parties essentially agree that the function claimed is "directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet." (*Id.*) The dispute between the parties focuses on whether the patent specification discloses a corresponding chamber shape to perform the function of directing the gas. AMO asserts that the structure corresponding to this limitation is "the chamber 36, which has a generally circular shape and more preferably ... a toroidal shape...." (*Id.; see* D.I. 138 at 22-24.) Alcon asserts that the specification does not contain a corresponding chamber shape because neither the "specification [nor the] prosecution history *clearly* links or associates that structure to the function recited in the claim." (D.I. 187 at 30 (quoting B. Braun Med., 124 F.3d at 1424) (emphasis added by Alcon).)

ii. The Court's Construction

[30] I agree with the parties that this sub-limitation is in means-plus-function format because the element includes the term "means" and the presumption stands unrebutted. *See* York Prods., 99 F.3d at 1574. Thus, it is necessary to identify the function recited by the claim. Sage Prods., 126 F.3d at 1428. I also agree with the parties that the claimed function is "directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet." Looking to the specification, I find that the only chamber shape corresponding to the performance of this function is "a generally circular shape and more preferably ... a toroidal shape...." ('765 patent, col. 4, ll. 2-3.) Specifically, in the Detailed Description, the specification discusses the function of directing rising gas, within the vertically oriented chamber, toward the aspiration fluid outlet. "Thus, the frame in combination with the console 20 and housing 30 provides a means for preventing accumulation of gas (which may be generated or introduced into the chamber) from accumulating in the chamber 36 during operation of the pump 22." (Id., col. 3, ll. 44-48.) The language refers to "chamber 36," which is disclosed to be of "a generally circular shape and more preferably ... a toroidal shape...." The recitation of "chamber 36" in the sentence discussing the function to be performed by the structure, is linked with the shape of chamber 36. Additionally, the only chamber shape disclosed in the patent is that of a circle or a toroidal. Specifically, in Figures 2 and 3 depicting the chamber, the chamber is consistently shown as generally circular. Thus, the corresponding "chamber shape" is "a generally circular or toroidal shape."

Alcon places a heavy, almost complete, reliance on the *B. Braun Medical* case in which the Federal Circuit held that the corresponding structure must be "clearly link[ed] or associate[d]" with the function recited in the claim. (D.I. 171 at 20; D.I. 187 at 30.) In that case, however, the issue was not whether *any* structure was linked to the particular function, but whether, in addition to the structure identified in the specification, another structure could also be linked to the claimed function. B. Braun Med., 124 F.3d at 1424. Here, the parties agree that the structure to be identified is a corresponding "chamber shape." (D.I. 164 at 3). There is no other chamber shape structure identified in the specification of the patent, except that of the "generally circular" or "toroidal" chamber 36. ('765 patent, col. 4, ll. 2-3.) Thus, based on the disclosures of the specification, one of ordinary skill in the art would understand that the generally circular shape or toroidal shape corresponds to the "chamber shape means" element of claim 1, and the required level of association between function and structure is therefore satisfied.

Alcon also asserts that the specification associates the circular or toroidal shape with creating "a circular pattern of fluid" to perform the function of "maintain[ing] a suspension of particulate material in the introduced fluid until it is evacuated by the pump through the outlet." (D.I. 187 at 32 (quoting '765 patent,

col. 4, ll. 17-24).) Upon a closer reading of the specification, the language reveals that it is the "chamber inlet 40 ... [that] is oriented along a chamber perimeter 94 for causing circulation [of the] introduced fluid within the chamber 36" that also performs the function identified by Alcon. ('765 patent, col. 4, ll. 17-24.) Even accepting Alcon's assertion, that the chamber shape contributes to the circulation function, there is no prohibition on two or more structures acting together to perform the same function. Thus, even if a circular or toroidal chamber shape is involved in the function of creating a circular pattern of fluid for the reason discussed, it does not alter my finding that such chamber shape is the "chamber shape" that is referred to by the claim limitation "chamber shape means."

2. Claim 2

Claim 2 of the '765 patent is as follows:

The apparatus according to claim 1 wherein the chamber inlet and chamber outlet are disposed on opposite sides of the said chamber.

('765 patent, col. 5, ll. 11-13.)

a. "disposed on opposite sides of said chamber"

i. The Parties' Proposed Constructions

AMO initially proposed that I construe "disposed on opposite sides of said chamber" to mean that the "the chamber inlet and outlet [are] to be arranged *facing each other* with the chamber, the intervening space, between them." (D.I. 138 at 34 (emphasis added).) AMO later proposed that I construe the term to mean "the chamber inlet and outlet are arranged with the chamber, the intervening space, between them." (D.I. 164 at 3-4.) Alcon proposes that I construe "disposed on opposite sides of said chamber" to mean "placed across from one another on the outer portion of the chamber." (D.I. 164 at 3; D.I. 171 at 22.)

AMO argues that Alcon is "impermissibly attempting to 'read in' a limitation from the specification that does not exist" because "the claim language makes no reference to the 'outer portion' of the chamber." (D.I. 138 at 34.) Additionally, AMO asserts that because claim 3, which is dependent upon claim 2, claims a chamber with the chamber inlet along the chamber perimeter, the doctrine of claim differentiation creates a strong presumption that claim 2 should not be interpreted to require that the chamber inlet and outlet be placed on the "outer portion" of the chamber.FN8 (Id. at 34-35.)

FN8. The same arguments apply to claim 8, which also includes the element "disposed on opposite sides of said chamber," and claim 9, which depends from claim 8 in the same manner in which claim 3 depends from claim 2.

Alcon counter-argues that the claim language itself makes reference to the "outer portion" of the chamber because it states "disposed on opposite *sides* of said chamber" and, therefore, Alcon is not impermissibly reading in a limitation from the specification. (D.I. 187 at 33.) Further, Alcon asserts that the doctrine of claim differentiation does not apply because the construction it has offered for this element does not render claim 3 superfluous since it contains an additional limitation concerning the way in which the inlet is oriented. (Id. at 34-35.)

ii. The Court's Construction

[31] I construe "disposed on opposite sides of said chamber" to mean "placed across the chamber from one another on the outer portion of the chamber." First, the parties do not disagree that the term "disposed"

means "placed or arranged." (D.I. 164 at 3.) Second, the plain and ordinary meaning of "opposite," when used to describe how two objects are positioned in relation to each other, is "across an intervening space from and usually facing or on the same level with." Webster's Third New International Dictionary 1583 (1996). The intervening space in claim 2 is clearly the chamber. Third, the plain and ordinary meaning of "side" is "a boundary line of a geometrical figure," in this case the circular or toroidal chamber. Id. at 2111. The boundary line of the chamber is clearly its outer portion. Thus, I do not believe that Alcon has impermissibly "read in" limitations from the specification, but rather proposed a construction that is entirely consistent with the claim element's plain and ordinary meaning. AMO's construction, on the other hand, does not attribute any meaning to the term "side" as used in the claim element.

Additionally, the doctrine of claim differentiation does not prevent the term "side" from being construed to mean the outer portion because claim 3 contains an additional limitation not included in claim 2, and, as such, is not rendered superfluous.FN9 *See* Telemac Cellular Corp. v. Topp Telecom, Inc., 247 F.3d 1316, 1325-26 (Fed.Cir.2001). Therefore, I construe "disposed on opposite sides of said chamber" to mean "placed across the chamber from one another on the outer portion of the chamber."

FN9. Claim 3 contains the additional limitation of "means, orienting said chamber inlet along the chamber perimeter, for causing circulation of the introduced fluid within said chamber in order to inhibit settling of particulate material, in the introduced fluid, in said chamber." ('765 patent, col. 5, ll. 16-19.) Thus, this additional limitation further narrows the scope of claim 3 to a way in which the inlet is oriented.

3. Claim 19

Claim 19 of the '765 patent is as follows:

A method for reducing expandable gas in the aspiration line of a fluid management system for a surgical instrument, the method comprising the steps of:

providing a console having an aspiration pump;

providing a housing having a longitudinal axis and a chamber with an aspiration fluid inlet and an aspiration fluid outlet, the outlet being disposed along the housing longitudinal axis;

connecting the outlet to the aspiration pump;

engaging and holding said housing and chamber to the console with the longitudinal axis in a vertical orientation with the fluid outlet disposed below the pump thereby enabling rise of gas, generated in or introduced into the chamber, from the chamber and into said aspiration pump; and

providing said chamber with a shape for directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet.

('765 patent, col. 6, ll. 44-63.)

a. "A method for reducing expandable gas in the aspiration line of a fluid management system for a surgical instrument, the method comprising the steps of"

i. The Parties' Proposed Constructions

AMO proposes that I construe the preamble to be limiting because the steps of method claim 19 would have no meaning or purpose if not described with reference to the purpose and device in the preamble. (D.I. 164

at 5; D.I. 138 at 35-36; D.I. 192 at 17.) Specifically, AMO asserts that without construing the preamble as a limitation, "the person of ordinary skill in the art [would not know] what particular endeavor the present invention is aimed at." (D.I. 138 at 36.) Alcon proposes that I should not interpret the preamble as a limitation because it "merely states the purpose or intended use of the invention and does not breathe life or meaning into the claim." (D.I. 187 at 35.)

ii. The Court's Construction

[32] As discussed, *see supra* Part IV.A.1.a.ii., a preamble is only limiting where "it recites essential structure or steps, or if it is necessary to give 'life, meaning, and vitality' to the claims." Intertool, 369 F.3d at 1295 (internal quotations and citations omitted). If deletion of the preamble "does not affect the structure or steps of the invention," it should not be considered limiting unless there is "clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art." *Id*. (internal quotations and citations omitted). In general, "[a]n intended use or purpose usually will not limit the scope of the claim because such statements usually do no more than define a context in which the invention operates." Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp., 320 F.3d 1339, 1345 (Fed.Cir.2003) ("*Boehringer* "). "But, ... preamble language will limit the claim if it recites not merely a context in which the invention may be used, but the essence of the invention without which performance of the recited steps is nothing but an academic exercise." *Id*. (citing Griffin v. Bertina, 285 F.3d 1029, 1033 (Fed.Cir.2002) ("*Griffin* ")). "Whether a preamble stating the purpose and context of the invention constitutes a limitation of the claimed process is determined on the facts of each case in light of the overall form of the claim, and the invention as described in the specification and illuminated in the prosecution history." Altiris, Inc. v. Symantec Corp., 318 F.3d 1363, 1371 (Fed.Cir.2003) (quoting Applied Materials, Inc. v. Advanced Semiconductor Materials Am., Inc., 98 F.3d 1563, 1572-73 (Fed.Cir.1996)).

[33] AMO cites *Boehringer* (D.I. 138 at 36) and *Griffin* (D.I. 192 at 17) in support of its position that the preamble is limiting; however, both of those cases are distinguishable from the facts presented in this case. Because it appears the preamble in this claim merely provides the purpose or intended use of the invention and therefore does not "give life, meaning, and vitality to the claim," it is not limiting.

In *Boehringer,* the Federal Circuit was faced with the preamble, "[a] method of growing and isolating swine infertility and respiratory syndrome virus, ATCC-VR2332, which comprises." Boehringer, 320 F.3d at 1344-45. The court found that the "growing and isolating ... virus" language of the preamble was limiting because without it, "the claimed method [was] reduce[d] to nothing more than a process for producing cytopathic effects in sheets of cultured MA-104 cells-a process whose absence of fathomable utility rather suggests the academic exercise." Id. at 1345. Thus, the court recognized that one of ordinary skill in the art would not understand the usefulness of the process without the "growing" and "isolating" language of the preamble. Similarly, the Federal Circuit in *Griffin,* found that the preamble, "[a] method for diagnosing an increased risk for thrombosis or a genetic defect causing thrombosis comprising the steps of," was limiting because "diagnosis is ... the essence of this invention ... [which] gives meaning and purpose to the manipulative steps in this case." Griffin, 285 F.3d at 1031, 1033 (internal citation omitted). Thus, the court concluded that "[i]n the absence of the preamble's stated objective to diagnose thrombosis, the term 'test subject' [,as used in the body of the claim,] is empty language." *Id*.

In this case, AMO argues that the preamble language "[a] method for reducing expandable gas" is limiting because without it, "the body of the claim does not teach the person of ordinary skill in the art what particular endeavor the present invention is aimed at." (D.I. 138 at 36.) Further, AMO relies on *Griffin* for the assertion that "[o]ne clue that a preamble in a method claim is [a] limitation is whether the body of the [claim] provide[s] no description of useful activity without the preamble." (D.I. 192 at 17 (citing Griffin, 285 F.3d 1029.)) AMO thus argues, perhaps in inadvertent error, FN10 that "[h]ere, 'enabling the rise of gas' provides meaning to the steps that would other wise [sic] be impermeable to the person of ordinary skill in

the art." (*Id.*)

FN10. AMO may not have intended to quote the language from the body of claim 19, because as I will discuss, it is precisely this language in the body that indicates the utility, to one of ordinary skill in the art, of performing the steps, and offers additional support for my finding that the preamble is not limiting.

I begin with the question of whether the preamble recites "the essence of the invention without which performance of the recited steps is nothing but an academic exercise." Boehringer, 320 F.3d at 1345 (citing Griffin, 285 F.3d at 1033). It does not. The steps of method claim 19 are not "absen[t] of fathomable utility." *Id.* Evidence of this point is found in the body of the claim itself. The step of "engaging and holding said housing ... in a vertical orientation with the fluid outlet disposed below the pump ... enabl[es][the] rise of gas, generated in or introduced into the chamber, from the chamber and into said aspiration pump." ('765 patent, col. 6, ll. 54-60.) The next step of claim 19 is "providing said chamber with a shape for directing rising gas ... toward said aspiration fluid outlet." (Id., col. 6, ll. 60-62.) These two steps, thus make it clear that the utility of the invention is to direct the rising gas generated or introduced into a chamber toward an outlet. Thus these steps accomplish the purpose stated in the preamble of "reducing expandable gas." Hence, unlike *Boehringer* and *Griffin,* the body of the claim recites the essence of the invention and, as such, is not "absen[t] of fathomable utility."

Additionally, in many of the cases in which courts have found the preamble of a method claim to be limiting, the preamble provided an antecedent basis for subsequent claim terms,FN11 as was the situation involving the preamble of claim 1 of the '240 patent in this case. *See supra* Part IV.A.1.a.ii. The preamble at issue here, however, does not provide an antecedent basis for any of the subsequent claim terms.

FN11. Some of these cases include: Eaton, 323 F.3d at 1339 ("said vehicle master clutch (8)," in the body of the claim, refers back to the particular clutch previously described in the preamble); Boehringer, 320 F.3d at 1344-45 (the claim body states "the virus" which refers back to the "swine infertility and respiratory syndrome virus, ATCC-VR2332" in the preamble); Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 621 (Fed.Cir.1995) (the claim body states "said packet," which refers back to the "method of transmitting a packet" in the preamble).

The preamble merely states the purpose of the invention, to reduce expandable gas in the aspiration line of a fluid management system for a surgical instrument. (*See* '765 patent, col. 6, ll. 44-46.) It does not provide the essence of the invention. Cases such as *Boehringer* dictate that "[a]n intended use or purpose usually will not limit the scope of the claim because such statements usually do no more than define a context in which the invention operates." 320 F.3d at 1345. Because the preamble does no more than define the context in which the invention operates, "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." Altiris, Inc., 318 F.3d at 1371. Accordingly, no construction of the preamble is required.

b. "engaging and holding said housing and chamber to the console with the longitudinal axis in a vertical orientation with the fluid outlet disposed below the pump thereby enabling rise of gas, generated in or introduced into the chamber, from the chamber and into said aspiration pump"

i. The Parties' Proposed Constructions

AMO proposes that "engaging and holding said housing and chamber to the console with the longitudinal axis in a vertical orientation with the fluid outlet disposed below the pump thereby enabling rise of gas, generated in or introduced into the chamber, from the chamber and into said aspiration pump" should not be

interpreted as a step-plus-function claim limitation and does not require construction. (D.I. 164 at 6; 138 at 36.) In support, AMO asserts that because the words "step for" do not appear in the claim element, the presumption that the element is not in step-plus-function format applies. (D.I. 192 at 18 (citing Masco Corp. v. U.S., 303 F.3d 1316, 1327 (Fed.Cir.2002) (" *Masco* ")).) Furthermore, AMO argues that courts are reluctant to apply step-plus-function treatment to claims lacking the "step for" language. (*Id*.) AMO cites to *O.I. Corp. v. Tekmar Co., Inc*. (" *O.I. Corp*."), in which the Federal Circuit stated that "[i]f we were to construe every process claim containing steps described by an 'ing' verb, such as passing, heating, reacting, transferring, etc. into a step-plus-function limitation, we would be limiting process claims in a manner never intended by Congress." 115 F.3d 1576, 1583 (Fed.Cir.1997). Additionally, AMO asserts that the "holding" and "engaging" terms in the claim element are "acts" and that therefore, this element should not be construed under section 112, paragraph 6. (D.I. 192 at 18-19.)

Alcon proposes that I construe the quoted language as a step-plus-function limitation because "it states a step of 'engaging and holding said housing in a vertical orientation' to perform the function of 'enabling [the] rise of gas, generated in [or] introduced into the chamber, from the chamber and into said aspiration pump,' without identifying the acts necessary to perform that function." (D.I. 164 at 6.) Alcon further proposes that the corresponding acts identified in the specification are "placing the housing in the console and activating the hinge, the latch, and the lip for locking the housing in the vertical orientation." (D.I. 164 at 6; *see* D.I. 171 at 24-25.)

ii. The Court's Construction

[34] The disputed language does not invoke section 112, paragraph 6. Because the words "step for" do not appear in the claim element, the presumption that the element is not in step-plus-function format applies. Masco, 303 F.3d at 1327. Also, fully applicable here is the Federal Circuit's express reluctance to interpret claim elements as step-plus-function limitations simply because an "ing" verb is in play, such as the verbs "engaging" and "holding" in the presently disputed claim. *See* O.I. Corp., 115 F.3d at 1583. Moreover, I agree with AMO that the claim element recites sufficient "acts," namely "engaging" and "holding," that this element should not be construed under section 112, paragraph 6.

Since the parties did not propose specific constructions for the terms within this element, I understand their dispute to be solely with regard to whether section 112, paragraph 6 applies, and not with regard to the meaning of the terms. Therefore, I need not construe this claim element any further.

c. "providing said chamber with a shape for directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet"

i. The Parties' Proposed Constructions

AMO proposes that "providing said chamber with a shape for directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet" should not be interpreted as a step-plus-function claim limitation and does not require a construction, for the same reasons it argued in connection with the last disputed claim element, *supra* Part IV.B.3.b.i. (D.I. 164 at 6; 192 at 19.) Alcon proposes that the language is a step-plus-function limitation because "it states a step of 'providing said chamber with a shape' to perform the function of 'directing gas within the vertically oriented chamber,' without identifying the acts necessary to perform that function." (D.I. 164 at 6.) Further, Alcon asserts that "there are no acts specified in the specification to perform this step and function, [and thus,] the claim is indefinite." (D.I. 171 at 25.)

ii. The Court's Construction

Again, the disputed language does not invoke section 112, paragraph 6, for the same reasons I stated in construing the previous claim limitation. *See supra* Part IV.B.3.b.ii. The words "step for" do not appear in

the claim element. *See* Masco, 303 F.3d at 1327. There is also the already noted reluctance to interpret claim elements as step-plus-function limitations under circumstances like this. *See* O.I. Corp., 115 F.3d at 1583. The claim element recites a sufficient "act," namely "providing," that this element should not be construed under section 112, paragraph 6. In addition, because this claim is not in step-plus-function format, I reject Alcon's argument regarding the indefiniteness of what it has alleged to be a step-plus-function claim limitation.

As with the prior limitation, the parties did not propose specific constructions for the terms within this limitation. I therefore understand their dispute to be solely with regard to whether section 112, paragraph 6 applies, and not with regard to the meaning of the terms. Accordingly, no further construction is required.

V. CONCLUSION

CLAIM TERM/PHRASE	THE COURT'S CONSTRUCTION
'240 Patent	
Claim 1:	
"A method for operating a phacoemulsification system, the system including a phacoemulsification handpiece, an ultrasonic power source, a vacuum source, a source of irrigating fluid, and a **control unit** having a vacuum sensor for controlling ultrasonic power provided to the handpiece and the aspiration of irrigating fluid from the handpiece, said operating method comprising the steps of"	The Court construed the claim term "control unit" to mean "electronics that receive and process electrical input signals and generate electrical output signals."
"placing the handpiece in an operative relationship with an eye for a phacoemulsification procedure"	The Court construed the claim term to mean that the handpiece is placed in an operative relationship with an eye "when it is inserted into an incision in an eye."
"providing ultrasonic power from the ultrasonic power source to the handpiece for performing the phacoemulsification procedure"	The Court construed the claim term to mean "providing ultrasonic power to the handpiece."
"occluded condition"	The Court construed the claim term to mean "a restriction of fluid flow in the aspiration line."
"sensing a vacuum level in the handpiece corresponding to an occluded condition of the handpiece"	The Court construed the claim term to mean "the vacuum level detected by the vacuum sensor of the control unit identified in the preamble which is positioned such that the vacuum it detects is indicative of the vacuum in the handpiece."
"variably controlling, in response to a sensed vacuum level in the handpiece corresponding to the occluded condition of the handpiece, the ultrasonic power being provided to the handpiece"	The Court construed the claim term to mean "the ability of the control unit to automatically change the amount of ultrasonic power, other than merely turning it on or off, being provided to the handpiece in response to a signal from the vacuum sensor indicating that a sensed rise in the vacuum of the aspiration line has reached a particular numeric value which is equal to the vacuum that exists in the aspiration line when the doctor believes he is going to have an occlusion issue."
Claim 3:	
"wherein the variably controlling step comprises decreasing the ultrasonic power being provided to the handpiece"	The Court construes the claim term to mean "the ability of the control unit to automatically decrease, other than merely turning off, the amount of ultrasonic power being provided to the handpiece in response to a signal from the

	vacuum sensor indicating that a sensed rise in the vacuum of the aspiration line has reached a particular numeric value which is equal to the vacuum that exists in the aspiration line when the doctor believes he is going to have an occlusion issue."
Claim 5:	
"**sending** vacuum levels in said handpiece"	The Court found that the claim term "sending" was a typographical error, intended to read "sensing," and construed it to mean "detecting."
"a **control unit**, responsive to the sensed vacuum level in said handpiece"	The Court construed the claim term to mean "electronics that receive and process electrical input signals and generate electrical output signals."
"varying the ultrasonic power"	The Court construed the claim term to mean "the ability of the control unit to automatically change the amount of ultrasonic power, other than merely turning it on or off."
Claim 6:	
"**varying** a **pulse duty cycle** of the ultrasonic power provided to said handpiece by the power source"	The Court construed the claim term "varying" to mean "the ability of the control unit to automatically change the amount of ultrasonic power, other than merely turning it on or off." The Court construed the claim term "pulse" to mean "a short application of power to the handpiece, with no power supplied immediately before or after the pulse."
	The Court construed the claim term "pulse duty cycle" to mean "a measure of the power being delivered to the handpiece in a mode in which power is provided in a series of regular pulses."
The '765 Patent	
Claim 1:	
"aspiration pump"	The Court construed the claim term to mean "a pump that removes fluid by creating or applying a reduced pressure (or vacuum) to that fluid."
"chamber"	The Court construed the claim term to mean "enclosed or compartmented space."
"disposed along the housing longitudinal axis"	The Court construed the claim term to mean "to be placed through, on, over, or continuously beside or on a line or course parallel and close to the lengthwise centerline of the housing."
"means for preventing accumulation of gas, generated in or introduced into the chamber, in said chamber, said means for preventing accumulation of gas comprises"	The Court determined that the claim term did not require independent construction because its meaning would be clearly understood once the Court had construed its sub-parts.
"chamber shape means for directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet"	The Court determined that the claim term is a means-plus-function limitation, the claimed function being "directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet" and the corresponding structure to be "a generally circular or toroidal shape."
Claim 2:	
"disposed on opposite sides of said chamber"	The Court construed the claim term to mean "placed

	across the chamber from one another on the outer portion of the chamber."
Claim 19:	
"A method for reducing expandable gas in the aspiration line of a fluid management system for a surgical instrument, the method comprising the steps of"	The Court determined that the preamble, was not limiting and thus did not require construction.
"engaging and holding said housing and chamber to the console with the longitudinal axis in a vertical orientation with the fluid outlet disposed below the pump thereby enabling rise of gas, generated in or introduced into the chamber, from the chamber and into said aspiration pump"	The Court determined that the claim term was not a step-plus-function limitation, and thus did not require further construction.
"providing said chamber with a shape for directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet"	The Court determined that the claim term was not a step-plus-function limitation, and thus did not require further construction.

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ORDER

For the reasons set forth in the Opinion issued today in this matter, IT IS HEREBY ORDERED that the disputed claim terms in U.S. Patent No. 5,700,240 and U.S. Patent No. 6,059,765 are construed as follows:

CLAIM TERM/PHRASE	THE COURT'S CONSTRUCTION
'240 Patent	
Claim 1:	
"A method for operating a phacoemulsification system, the system including a phacoemulsification handpiece, an ultrasonic power source, a vacuum source, a source of irrigating fluid, and a **control unit** having a vacuum sensor for controlling ultrasonic power provided to the handpiece and the aspiration of irrigating fluid from the handpiece, said operating method comprising the steps of"	The Court construed the claim term "control unit" to mean "electronics that receive and process electrical input signals and generate electrical output signals."
"placing the handpiece in an operative relationship with an eye for a phacoemulsification procedure"	The Court construed the claim term to mean that the handpiece is placed in an operative relationship with an eye "when it is inserted into an incision in an eye."
"providing ultrasonic power from the ultrasonic power source to the handpiece for performing the phacoemulsification procedure"	The Court construed the claim term to mean "providing ultrasonic power to the handpiece."
"occluded condition"	The Court construed the claim term to mean "a restriction of fluid flow in the aspiration line."
"sensing a vacuum level in the handpiece corresponding to an occluded condition of the handpiece"	The Court construed the claim term to mean "the vacuum level detected by the vacuum sensor of the control unit identified in the preamble which is positioned such that the vacuum it detects is indicative of the vacuum in the handpiece."
"variably controlling, in response to a sensed vacuum level in the handpiece corresponding to the occluded condition of the handpiece, the ultrasonic power being provided to the handpiece"	The Court construed the claim term to mean "the ability of the control unit to automatically change the amount of ultrasonic power, other than merely turning it on or off, being provided to the handpiece in response to a signal

	from the vacuum sensor indicating that a sensed rise in the vacuum of the aspiration line has reached a particular numeric value which is equal to the vacuum that exists in the aspiration line when the doctor believes he is going to have an occlusion issue."
Claim 3:	
"wherein the variably controlling step comprises decreasing the ultrasonic power being provided to the handpiece"	The Court construes the claim term to mean "the ability of the control unit to automatically decrease, other than merely turning off, the amount of ultrasonic power being provided to the handpiece in response to a signal from the vacuum sensor indicating that a sensed rise in the vacuum of the aspiration line has reached a particular numeric value which is equal to the vacuum that exists in the aspiration line when the doctor believes he is going to have an occlusion issue."
Claim 5:	
"**sending** vacuum levels in said handpiece"	The Court found that the claim term "sending" was a typographical error, intended to read "sensing," and construed it to mean "detecting."
"a **control unit**, responsive to the sensed vacuum level in said handpiece"	The Court construed the claim term to mean "electronics that receive and process electrical input signals and generate electrical output signals."
"varying the ultrasonic power"	The Court construed the claim term to mean "the ability of the control unit to automatically change the amount of ultrasonic power, other than merely turning it on or off."
Claim 6:	
"**varying** a **pulse duty cycle** of the ultrasonic power provided to said handpiece by the power source"	The Court construed the claim term "varying" to mean "the ability of the control unit to automatically change the amount of ultrasonic power, other than merely turning it on or off." The Court construed the claim term "pulse" to mean "a short application of power to the handpiece, with no power supplied immediately before or after the pulse."
	The Court construed the claim term "pulse duty cycle" to mean "a measure of the power being delivered to the handpiece in a mode in which power is provided in a series of regular pulses."
The '765 Patent	
Claim 1:	
"aspiration pump"	The Court construed the claim term to mean "a pump that removes fluid by creating or applying a reduced pressure (or vacuum) to that fluid."
"chamber"	The Court construed the claim term to mean "enclosed or compartmented space."
"disposed along the housing longitudinal axis"	The Court construed the claim term to mean "to be placed through, on, over, or continuously beside or on a line or course parallel and close to the lengthwise centerline of the housing."
"means for preventing accumulation of gas, generated in	The Court determined that the claim term did not require

or introduced into the chamber, in said chamber, said means for preventing accumulation of gas comprises"	independent construction because its meaning would be clearly understood once the Court had construed its sub-parts.
"chamber shape means for directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet"	The Court determined that the claim term is a means-plus-function limitation, the claimed function being "directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet" and the corresponding structure to be "a generally circular or toroidal shape."
Claim 2:	
"disposed on opposite sides of said chamber"	The Court construed the claim term to mean "placed across the chamber from one another on the outer portion of the chamber."
Claim 19:	
"A method for reducing expandable gas in the aspiration line of a fluid management system for a surgical instrument, the method comprising the steps of"	The Court determined that the preamble, was not limiting and thus did not require construction.
"engaging and holding said housing and chamber to the console with the longitudinal axis in a vertical orientation with the fluid outlet disposed below the pump thereby enabling rise of gas, generated in or introduced into the chamber, from the chamber and into said aspiration pump"	The Court determined that the claim term was not a step-plus-function limitation, and thus did not require further construction.
"providing said chamber with a shape for directing rising gas, within the vertically oriented chamber, toward said aspiration fluid outlet"	The Court determined that the claim term was not a step-plus-function limitation, and thus did not require further construction.

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