

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION

DIVERSEY, INC.,	§	
Plaintiff	§	
	§	
v.	§	Civil Action No. 1:18-cv-4210-AT
	§	
POPS TECHNOLOGIES LLC,	§	
Defendant	§	
	§	
	§	
	§	

MASTER’S REPORT AND RECOMMENDATION ON
CLAIM CONSTRUCTION

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I.

Parties

Diversey, Inc., a Delaware corporation, (“Diversey”), sued POPS Technologies, LLC, a Georgia limited liability company (“POPS”), for infringement of U.S. Patent Nos. 9,616,441 (the ’441 patent) and 10,328,398 (the ’398 patent). The ’398 patent issued as a continuation of the ’441 patent, and thus both patents share a common specification and drawings.

In general terms, those patents, both entitled “Multiple Function Dispenser,” are drawn to dispensers for chemical concentrates.

In particular, those patents are drawn to dispensers having eductors that allow for selection of high and low flow rates. ’441 patent, abstract, ’398 patent, abstract. “A dispenser which dispenses chemical concentrate should have the capability of dispensing the concentration at a low rate such as in the instance where a bottle is to be filled and at a high rate where a bucket is to be filled.” ’441 patent, 1:38-41, ’398 patent, 1:40-43.

Diversey asserts that POPS’ MFMS Dispenser infringes certain claims of those patents, directly and/or indirectly.

The Parties dispute the meaning of certain terms/phrases used in the asserted claims. The Supreme Court in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996), held, *inter alia*, that the construction of a patent, including terms of art within its claim, is “exclusively within the province of the court,” thus inaugurating the “*Markman*” or claim construction hearing.

II.

Order of Appointment and Markman Hearing

By Order dated March 3, 2021 [Dkt. 90], the Court appointed the undersigned to serve as special master pursuant to Rule 53, Federal Rules of Civil Procedure.

The Court appointed the undersigned “to perform all duties and tasks identified herein through the completion of the claim construction phase of the case, culminating in the filing of a report and recommendation regarding proper claim construction in this case.” *Id.*

In particular, the Order of Appointment provided that “(1) [t]he Special Master’s duties shall include: (a) conducting conferences with counsel as to preliminary proceedings in this matter through claim construction; (b) presiding over a hearing that addresses both claim construction issues and a

tutorial portion for the Court’s benefit; (c) submitting a report and recommendation (“R&R”) on claim construction to the Court; and, (c) resolving any disputes through the point of claim construction. The sequence in which the parties may present arguments and the manner of presentation of evidence at the *Markman* hearing and tutorial will be determined by the Special Master. The Special Master shall confer with the parties regarding scheduling of the combined *Markman* hearing and tutorial.”

After conferences with the Parties and the Court, the *Markman* hearing, by agreement of the parties, was held on Thursday May 13, 2021. Master’s Order Setting Claim Construction Hearing [Dkt. 95]. The parties, by agreement, were allotted 1.5 hours total time, with 45 minutes allotted per side, which the parties could use for a “technical tutorial,” and/or arguments for their respective constructions. During the hearing, the Parties were afforded additional time.

Claim terms were addressed in a “ping-pong” fashion – namely term-by-term. And were addressed in the order that the parties had agreed to (the same order addressed herein).

The parties agreed that there would be no live-witness testimony during the hearing. The parties’ PowerPoint and similar presentations have been made of record. The *Markman* hearing was transcribed by the Court’s reporter.

Diversey has filed a Motion to Correct and Supplement the Claim Construction Record [Dkt. 98] dated May 25, 2021. POPS has filed a response [Dkt. 99]. That motion will be addressed further below.

Pursuant to the Court’s Order, the master provides the following Report and Recommendation (R&R) on Claim Construction.

III.

Parties’ Submissions

The Parties have provided the following submissions:

Date Filed	Dkt. No.	Submission
5/13/2020	70	Plaintiff Diversey, Inc.’s Opening Claim Construction Brief – “Diversey Op. Brief [Dkt. 70] at ____”
5/13/2020	69	Defendant POPS Technologies LLC’s Opening Claim Construction Brief – “POPS Op. Brief [Dkt. 69] at ____”
06/02/20	72	Plaintiff Diversey, Inc.’s Responsive Claim Construction Brief – “Diversey’s Resp. Brief [Dkt. 72] at ____”

Date Filed	Dkt. No.	Submission
06/02/20	73	POPS Technologies LLC's Responsive Claim Construction Brief – “POPS Resp. Brief [Dkt. 73] at ____”
05/13/2021		Plaintiff's Tutorial and Claim Construction Presentation – “Diversey's Markman Presentation at ____”
05/13/2021		POPS Technologies Claim Construction Presentation – “POPS Markman Presentation at ____”
05/21/2021		Transcript of <i>Markman</i> hearing – “CC Tr. at ____”
05/25/2021	98	Plaintiff Diversey Inc's Motion to Correct and Supplement the Claim Construction Record – “Diversey's Motion [Dkt. 98] at ____”
06/08/2021	99	Response to Motion to Correct and Supplement the Claim Construction Record – POPS' Response [Dkt. 99] at ____”

In addition, POPS moved, *inter alia*, for leave to provide a sample of its accused MFMS Dispenser product to the Court, which was granted-in-part. That is primarily relevant *vis-à-vis* Diversey's motion to correct and supplement the claim construction record [Dkt. 98].

With respect to submission of samples of accused devices, the Federal Circuit in *Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1326-27 (Fed. Cir. 2006), commented that “[t]his court reviews claim construction only as necessary to reach that final judgment on an infringement cause of action. Therefore, in reviewing claim construction in the context of infringement, the legal function of giving meaning to claim terms always takes place in the context of a specific accused infringing device or process. While a trial court should certainly not prejudice the ultimate infringement analysis by construing claims with an aim to include or exclude an accused product or process, knowledge of that product or process provides meaningful context for the first step of the infringement analysis, claim construction.”

The Federal Circuit in *Wilson Sporting*, further commented that:

In this case, despite entry of a final judgment, neither the trial court nor the parties supplied this court with any information about the accused products. Thus, this record affords this court no opportunity to compare the accused products to the asserted claims. Accordingly, this court cannot assess the accuracy of any infringement or validity determination. Furthermore, this sparse record lacks the complete context for accurate claim construction. Thus, without a record of the accused products, this appeal assumes many attributes of a proceeding seeking an advisory opinion on the scope of the [patent-in-suit].

Wilson Sporting, 442 F.3d at 1327.

Subsequently, in *Lava Trading, Inc. v. Sonic Trading Management, LLC*, 445 F.3d 1348, 1350 (Fed. Cir. 2006), the Federal Circuit similarly commented that “this record on appeal does not supply any meaningful comparison of the accused products to the asserted claims. Without knowledge of the accused products, this court cannot assess the accuracy of the infringement judgment under review and lacks a proper context for an accurate claim construction.”

The Federal Circuit in *Lava Trading* reiterated that “[w]hile a trial court should certainly not prejudge the ultimate infringement analysis by construing claims with an aim to include or exclude an accused product or process, knowledge of that product or process provides meaningful context for the first step of the infringement analysis, claim construction,” 445 F.3d at 1350, quoting *Wilson Sporting*, 442 F.3d at 1326.

The Federal Judicial Center’s Patent Case Management Guide (3rd ed. Federal Judicial Center 2016), § 5.1.3.4 also explains that:

Another common question is whether, and to what extent, the court should consider the accused device during the *Markman* hearing. In theory, the accused device should have no role in the *Markman* process because the claims should be construed based on the patent language and relevant supporting documentation. Older *en banc* authority from the Federal Circuit holds that the accused device should not be considered during claim construction. See *SRI Int’l v. Matsushita Elec. of Am.*, 775 F.2d 1107, 1118 (Fed. Cir. 1985) (*en banc*) (“It is only after the claims have been construed without reference to the accused device that the claims, as so construed, are applied to the accused device to determine infringement.”). More recently, the Federal Circuit expressly approved consideration of the accused device during claim construction. *Wilson Sporting Goods Co. v. Hillerich & Bradshy Co.*, 442 F.3d 1322, 1327 (Fed. Cir. 2006); *Pall Corp. v. Hemasure Inc.*, 181 F.3d 1305, 1308 (Fed. Cir. 1999) (“Although the construction of the claim is independent of the device charged with infringement, it is convenient for the court to concentrate on those aspects of the claim whose relation to the accused device is in dispute.”); see also *Every Penny Counts*, 563 F.3d at 1384 (quoting *Aero Prods. Int’l, Inc. v. Intex Recreation Corp.*, 466 F.3d 1000, 1012 n.6 (Fed. Cir. 2006)) (“Although the court revealed an awareness of the accused device, the court’s awareness of the accused device is permissible.”). As this more recent authority stresses, it is often useful for trial courts to understand the context of the infringement dispute to know what they are deciding when ruling on claim construction. Moreover, knowing the context of the infringement (or validity) dispute gives courts a better sense of whether they even need to construe a term, or if they can simply let the “plain meaning” of a term speak for itself. Nonetheless, the accused device has no relevance to how a person having ordinary skill in the art would interpret claim terms.

Here, POPS moved for leave to submit samples of the (1) accused product and (2) commercial embodiment of the asserted patents. [Dkt. 92].

In particular, POPS requested leave to submit to the Court and master samples of the (1) accused POPS MSMF Product, as well as (2) Diversey's commercial embodiment of the subject patents. POPS' stated purpose was to supplement the Parties' technology tutorials in connection with the *Markman* hearing. POPS represented that it was not its intent to present those samples *as evidence* in support of its respective claim construction arguments, but instead to provide the Court with a pertinent context for the claim construction disputes. POPS urged, *inter alia*, that a first-hand physical examination of the accused products, as well as a commercial embodiment of Diversey's patents, would provide the Court and master with, as suggested by the Federal Circuit in *Wilson Sporting*, "a meaningful context for the first step of the infringement analysis, claim construction."

Diversey responded that Diversey "does not object to POPS' submission of a representative sample of its accused products," as POPS' accused products have already been shown and discussed thoroughly in the briefs. (Def. Resp., Doc. 93 at 2.) However, Diversey *did* object to the submission of *its* products for purposes of the technology tutorial. Diversey argued that it "has no idea what POPS plans to say about Diversey's commercial products" and that its products have not been referenced in the briefs. *Id.* Diversey further contended that consideration of its products was unnecessary to understand the technology and suggested that POPS sought to use Diversey's products for improper purposes: namely, to compare the devices in setting the stage for the *Markman* hearing. *Id.* at 3, 5.

The Court GRANTED-IN-PART and DENIED-IN-PART the motion. Order dated April 12, 2021 [Dkt. 94].

The Court advised that "[t]o start, as there is no objection to the inclusion of a representative sample of POPS' accused products, the Court will allow this submission. However, the Court will not allow POPS to submit a sample of Diversey's products at this juncture. The issue of claim construction is necessarily limited to intrinsic evidence, such as the patent specification and file history, and extrinsic evidence, such as technical dictionaries and expert testimony. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). While POPS argues that it does not intend to offer Diversey's embodiment as evidence in support of its claim construction arguments, the Court has several concerns about POPS introducing Diversey's products, even solely for purposes of the technology tutorial." *Id.* at 2.

The Court noted that "[f]irst, the Court finds that it would not be proper to consider POPS' submission of Diversey's supposed commercial embodiment without evidence and/ or a concession from Diversey that the proffered commercial embodiment includes each and every limitation of the

asserted claims. Diversey points to several potentially infringed commercial products and has not conceded that these products collectively or individually constitute a commercial embodiment of the asserted claims. Allowing POPS to define the contours of the commercial embodiment at this stage is therefore problematic.” *Id.* at 3.

The Court additionally reasoned that “[s]econd, as argued by Diversey, POPS made no mention of Diversey’s commercial embodiment in its claim construction brief. It would be imprudent to allow POPS to introduce a proposed demonstrative of Diversey’s devices at this post-briefing stage since Diversey has had no opportunity to respond to POPS’ proposed embodiment and the Court determines that additional briefing on this issue would be unnecessary and cause further delay. While *Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322 (Fed. Cir. 2006), cited by Defendant (Mot. at 5), generally supports the proposition of allowing a court to review demonstratives for accused devices when assessing claim construction, for limited purposes, that proposition should be considered as narrowly cabined by the general rule that claim construction is based on the intrinsic record and any permissible extrinsic evidence, as cited above. *Vitronics Corp.*, 90 F.3d at 1582.”

The Court concluded that “[f]or these reasons, POPS may submit to the Court and Special Master a demonstrative of *its own* accused devices, but not the supposed commercial embodiment of Diversey’s devices.” *Id.* at 3-4.

In accordance with *Wilson Sporting Goods*, and the Federal Circuit’s direction that “[w]hile a trial court should certainly not prejudge the ultimate infringement analysis by construing claims with an aim to include or exclude an accused product or process, knowledge of that product or process provides meaningful context for the first step of the infringement analysis, claim construction,” and the Court’s explicit instructions here *vis-à-vis* POPS’ MFMS Dispenser product, that sample of POP’s MFMS Dispenser product has been used solely as a supplement to the technology tutorials.

IV.

Dispute Summary

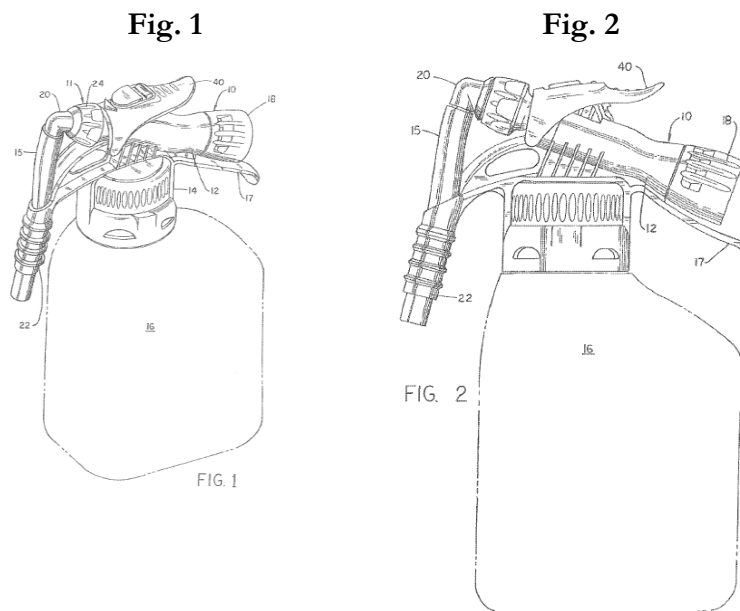
A. Patents-at-Issue and Technology

The application, entitled “Multiple Function Dispenser,” maturing into the ’441 patent was filed on September 14, 2012, as a continuation of an earlier filed application, now U.S. Patent No. 8,398,003, with related parent continuation and divisional applications dating to U.S. Patent No.

6,708,901, and a provisional application filed on January 12, 2001. As noted above, the '398 patent is a continuation of the '441 patent.

The “abstract” explains that the '441 patent discloses “[a] dispenser for mixing and dispensing a liquid chemical concentrate with a dilutant from a container.” '441 patent, abstract. However, as noted above, a principal aspect of the invention is that the '441 and '398 patents are drawn to dispensers having eductors that allow for selection of high and low flow rates. '441 patent, abstract, '398 patent, abstract. “A dispenser which dispenses chemical concentrate should have the capability of dispensing the concentration at a low rate such as in the instance where a bottle is to be filled and at a high rate where a bucket is to be filled.” '441 patent, 1:38-41, '398 patent, 1:40-43.

Figs. 1 and 2 of the '441 patent are said to represent a perspective view of the invention in conjunction with a container, and a side elevation of the dispenser in Fig. 1, respectively. '441 patent, 2:62-65:



In general terms, as explained in the specification, “the dispenser generally 10 has a body member 12 with a container connector 14 for connection to a container or bottle 16. * * * At one end of the body member 12 is a hose attachment 18 for supplying pressurized water to the dispenser. A handle 17 is provided below attachment 18. At the other end there is the spout 22 and a nozzle 20 for dispensing a mixed chemical solution. A flexible tube 15 extends between nozzle 20 and spout 22.” '441 patent, 3:30-40. Figs. 3 and 4, are said to represent an exploded view of the component parts of

the dispenser, and a cross-sectional view of the dispenser in a closed position, respectively. '441 patent, 2:64-3:2. The specification explains that, as illustrated in the “exploded views” of Figs. 3 and 4, “the dispenser 10 includes an eductor generally 11 composed of the first or outer eductor part 24 with a diverging passage 24a and an inner second eductor part 26 with a converging passage 26a.” '441 patent, 3:41-44.

The term “eductor,” is a principal disputed term herein, as discussed at length below. But there is no dispute that the patentees introduced the term “eductor” in the specification and then the claims –not as a lexicographer of a new term – or in an idiosyncratic sense – but rather as a term commonly known to those skilled in the art. Albeit perhaps not “common” to those not having ordinary skill in the art.

As discussed more fully below, POPS has not presented any evidence that “eductor,” as used in the '441 and '398 patents is other than a recognized technical term of art. Moreover, the specifications of the '441 and '398 patents plainly introduce the term “eductor” in a context that the reader – one of ordinary skill in the art – is presumed to understand the term.

For example, further supplemented below, the McGraw-Hill Dictionary of Scientific and Technical Terms (5th ed. 1994) at 641, defines “eductor” in the field of engineering as “an ejector-like device for mixing two fluids.”

Performing a “Google” or similar Internet search for “eductor” reveals numerous articles, including “How Does an Eductor Work,” <https://eductors.net/eductor-work/> along with various commercial sources to one wishing to purchase “eductors,” as well as various “definitions,” *etc.*

Suffice it to say that the term “eductor” is a recognized technical term for a class of mechanical apparatuses long recognized by those having ordinary skill in the art.

Diversey's Amended Complaint identifies POPS' MFMS dispenser as the accused product:



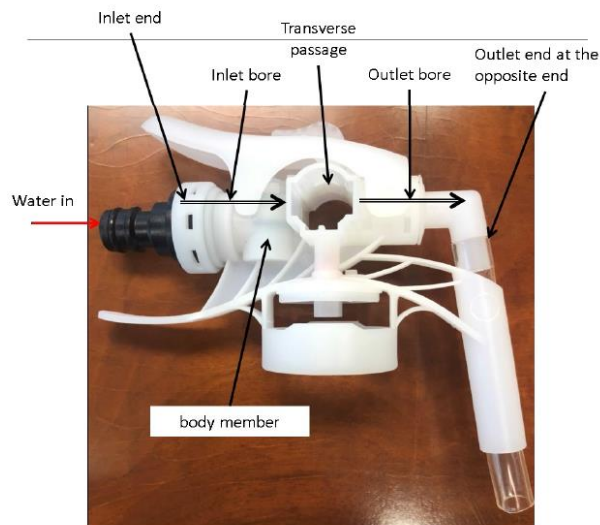
POPS' MFMS Dispenser

Diversey's Amended Complaint [Dkt. 53] at ECF 6.

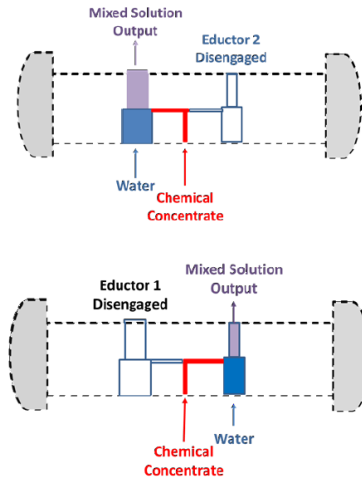
The accused POPS dispenser apparently also provides the capability of dispensing the concentration at a low rate such as in the instance where a bottle is to be filled and at a high rate where a bucket is to be filled.

During the *Markman* hearing, POPS presented the following PowerPoint slides explaining its dispenser:

POPS Dispenser



POPS Dispenser Dual Educator System Select bottle fill or bucket fill educator

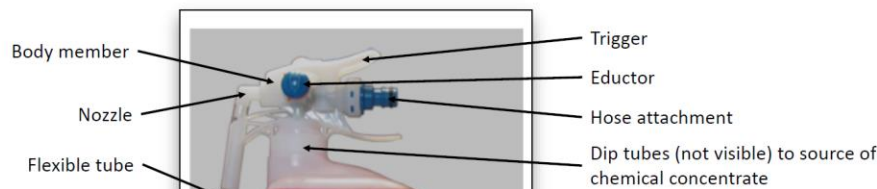


POPS Markman Presentation at 8 – 9.

In general, those are understood to emphasize POPS' contention that while the accused POPS' MFMS dispenser also provides for a selection of high and low flow rates, for example to fill bottles vs. buckets, through selection of an educator, those "educators" in the accused product do not meet the terms of the claims, according to POPS' proposed constructions. And POPS urges that the accused products do not otherwise meet the terms of the claim terms, as POPS proposes.

Diversey disagrees. Diversey included the following PowerPoint slides as part of its technology tutorial, illustrating its understanding of the accused POPS' MFMS dispenser:

Technology Background: POPS Accused Products



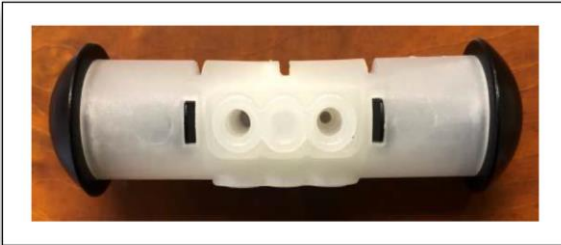
Item: Maintenance Free Mop Station

- One time use proportioner built right on top of a 3L detergent holding bottle
- Conveniently switch from 4GPM Bucket Fill to 1GPM Bottle Fill
- Built-in main water switch
- All recyclable material
- Quick connects with water supply hose

<http://www.popstechnologies.com/mfms.html>

See <http://www.popstechnologies.com/mfms.html>

Technology Background: POPS Accused Product



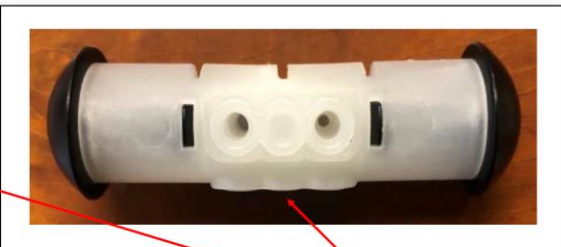
Dkt. 69 at 7.

We have a single eductor that is slide-able along a bore(tunnel) ... which switches between 1 gal to 4 gal flow rates. When the eductor is pushed to the left, it hooks up with one flow rate channel. When you slide the eductor to the right, it hooks up with a different flow rate channel.

Dkt. 72-2 at 2 (POPS00002114).

See <http://www.popstechnologies.com/mfms.html>

Technology Background: POPS Accused Product



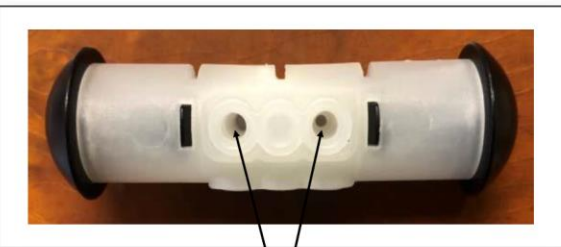
Dkt. 69 at 7.

"[T]he dispenser comprises an adjustable eductor where a concentrate liquid is drawn into a carrier input fluid at different set rates depending on the size of concentrate liquid apertures and the flow rate of the carrier input fluid."

Dkt. 72-4 at 9 (Col. 1, ll. 9-13).

See <http://www.popstechnologies.com/mfms.html>

Technology Background: POPS Accused Product



Dkt. 69 at 7.

"In the eductor dispenser . . . the concentrated chemical can flow through two or more different sized venturi channels into the input fluid stream to give two or more different concentrations of the chemical concentrate in the input fluid and thus in the now diluted chemical product."

Dkt. 72-4 at 9 (Col. 2, ll. 9-14).

See <http://www.popstechnologies.com/mfms.html>

Diversey's Markman Presentation at 6 – 9.

In accordance with the Federal Circuit's admonishment in *Wilson Sporting Goods*, and other cases, that a court cannot conduct claim construction "with an aim to include or exclude an accused product or process" from the scope of infringement, the foregoing have been treated as simply part of the Parties' respective technology tutorials.

B. Parties' Proposed Constructions

To the extent that the Parties' proposed constructions for the disputed terms/phrases may have evolved somewhat since their original briefs were filed, the following listed proposed constructions are taken from the Parties' respective presentations during the *Markman* hearing. It is understood that those are the Parties' "final" proposed constructions.

Disputed terms/phrases addressed in the Parties' briefs, but not during the *Markman* hearing, are listed at the end.

Accordingly, the Parties' proposed constructions are (in the order in which the Parties agreed to present those terms during the *Markman* hearing) –

Claim Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
Eductor ('441, '398)	Plain meaning Or A device for siphoning a chemical concentrate into a stream of diluent and mixing it with the diluent (e.g., water)	A single fluid passageway having a constriction to draw a chemical product (e.g., chemical concentrate) into a stream of diluent and mixing it with the diluent (e.g., water)
Through Bore ('441)	Plain meaning Or A hollow passageway for receiving an eductor, wherein the passageway passes or extends through the body	A cylindrical hole with a longitudinal axis through the body member from the source of pressurized water to the exit from the body member
Bore ('398)	Plain meaning Or A hollow passageway for receiving an eductor, wherein the passageway passes or extends into or through the body	A cylindrical hole with a longitudinal axis through the body member from the source of pressurized water to the exit from the body member

Claim Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
Inlet End ('441)	Plain meaning Or A part of the bore's boundary containing an opening for entrance or intake of water	Plain meaning Or The end of the bore for entrance or intake of water
One End ('441)	Plain meaning Or One part of the bore located at its boundary	The "inlet end"
Opposite End ('441)	Plain meaning Or The part of the bore located at its boundary opposite the one end	Plain meaning Or The end of the bore that is opposite the inlet end
Inlet ('398)	Plain meaning Or An opening for entrance or intake of water	An opening in the body for entrance or intake of water
Outlet ('441, '398)	Plain meaning Or An opening for exit of a mixture of water and chemical concentrate	An opening in the body for exit of a mixture of water and chemical concentrate
Chemical Concentrate	Plain meaning Or A chemical product to be mixed with a diluent (e.g., water)	A chemical product prior to any mixing with a diluent (e.g., water)
Plurality of Spaced Apertures Through Which Chemical Concentrate Flows ('441)	Plain meaning Or Two or more openings, holes, or gaps positioned at a distance from each other and configured to allow chemical concentrate to pass through	Two or more openings, holes or gaps positioned at a distance from each other to allow only chemical concentrate to pass through
To Selectively Provide Chemical Concentrate to the Fluid Passage ('398)	Plain meaning Or Provide chemical concentrate to the fluid passage as chosen by a user	Provide more than one non-zero amount of chemical concentrate to the fluid passage
Terms Addressed Only in the Briefs		
Connected to the Inlet End ('441 patent)	Plain meaning Or Joined or linked to the inlet end	Continuous passageway within the through bore from the inlet end to the outlet end

Claim Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
To Provide Control of ('441/'398)	Plain meaning Or To adjust, regulate, direct or guide	To control entirely by a single eductor
Product Passageway ('398)	Plain meaning	A single passage in the body
Nozzle ('398)	Plain meaning Or A projecting part with an opening directing fluid	A cylindrical or round spout at the end of a pipe, hose, or tube used to control a jet of gas or liquid

C. Analysis

The following section of this Report and Recommendation discusses Claim Construction Principles.

1. Disputed Claim Terms/Phrases in the Context of Claim Language

Below, each of the disputed claim terms/phrases will be considered in the context of the claim or claims in which the disputed claim terms/phrases appear.

The Federal Circuit has advised that “the claims themselves provide substantial guidance as to the meaning of particular claim terms.” *Phillips*, 415 F.3d at 1314. *See also ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 (Fed.Cir.2003) (“the context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms”). “Other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term.” *Id.*, citing *Vitronics*, 90 F.3d at 1582. “Differences among claims can also be a useful guide in understanding the meaning of particular claim terms.” *Id.*, citing *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1538 (Fed.Cir.1991).

2. Specification, Drawings and Prosecution History

Below, each of the disputed claim terms/phrases will be further considered in the context of the specification(s), drawings and prosecution history (to the extent available, and to the extent relied upon by the Parties).

The Federal Circuit in *Phillips* advised that “‘[t]he claims, of course, do not stand alone. Rather, they are part of a fully integrated written instrument,’ *Markman*, 52 F.3d at 978, consisting principally of a specification that concludes with the claims. For that reason, claims ‘must be read in view of the

specification, of which they are a part.’ * * * As we stated in *Vitronics*, the specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’ 90 F.3d at 1582.” 415 F.3d at 1316.

Overall, the claims will be reviewed in accordance with the following Claim Construction Principles.

V.

Claim Construction Principles

A. Overview

The Federal Circuit has emphasized that, “[c]ourts do not rewrite claims; instead, we give effect to the terms chosen by the patentee.” *K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1364 (Fed. Cir. 1999).

The Federal Circuit has also emphasized that “patents” are primarily “technical documents” written to be read and understood by one of ordinary skill in the art. *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1116 (Fed.Cir.2004) (“A court construing a patent claim seeks to accord a claim the meaning it would have to a person of ordinary skill in the art at the time of the invention.”).

The Federal Circuit *en banc* explained that “[w]e have frequently stated that the words of a claim ‘are generally given their ordinary and customary meaning,’ but “that the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005)(*en banc*), citing, *inter alia*, *Innova*, 381 F.3d at 1116. (emphasis added)

Also, the Federal Circuit has explained that in some instances, it is helpful to have knowledge of the accused products. *Lava Trading, Inc. v. Sonic Trading Management, LLC*, 445 F.3d 1348, 1350 (Fed. Cir. 2006)(“this record on appeal does not supply any meaningful comparison of the accused products to the asserted claims. Without knowledge of the accused products, this court cannot assess the accuracy of the infringement judgment under review and lacks a proper context for an accurate claim construction.”). Nevertheless, claim construction cannot be driven by the effect on infringement or validity *vel non*. *Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1326-27 (Fed. Cir.

2006) (“a trial court should certainly not prejudge the ultimate infringement analysis by construing claims with an aim to include or exclude an accused product or process * * *”).

A patent is a fully integrated written instrument. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978 (Fed. Cir. 1995) (*en banc*), *aff’d*, 517 U.S. 370 (1996). A patent, by statute, must provide a written description of the invention, a disclosure that would enable one of ordinary skill in the art to make and use the invention, and a disclosure of the best mode known to the inventor for practicing the invention. *See* 35 U.S.C. § 112(a). A patent must also contain claims “particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” 35 U.S.C. § 112(b). The claims of a patent provide the measure of a patentee’s right to exclude others from practicing the claimed invention. *See* 35 U.S.C. § 154.

B. Claims

Primary claim construction principles are discussed and explained in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*). Among those are that “[i]t is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Id.* at 1312, quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004), and citing *Vitronics Corp. v. Conceptor, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). *See also Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998) (claim construction “begins and ends” with the actual words of the claims). “That principle has been recognized since at least 1836, when Congress first required that the specification include a portion in which the inventor ‘shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery.’” *Phillips*, 415 F.3d at 1312.

“[T]he words of a claim ‘are generally given their ordinary and customary meaning,’” and “the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1313. “That starting point is based on the well-settled understanding that inventors are typically persons skilled in the field of the invention and that patents are addressed to and intended to be read by others of skill in the pertinent art.” *Id.* at 1313. “Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.*

“In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314. Thus, in some instances, “general purpose dictionaries may be helpful,” but, as the court explained, “[i]n many cases that give rise to litigation * * * determining the ordinary and customary meaning of the claim requires examination of terms that have a particular meaning in a field of art.” *Id.* at 1314; see *Mangosoft, Inc. v. Oracle Corp.*, 525 F.3d 1327, 1333 (Fed. Cir. 2008)(“when considered in the context of and not divorced from the intrinsic evidence, there is nothing improper about referencing [a] definition in correctly construing the claim.”). “Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, the court looks to ‘those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.’ ” *Id.*, quoting *Innova/Pure Water*, 381 F.3d at 1116. “Those sources include ‘the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.’ ” *Phillips*, 415 F.3d at 1314.

Thus, the claim construction process begins with the language used in the claims because “[q]uite apart from the written description and the prosecution history, the claims themselves provide substantial guidance as to the meaning of particular claim terms.” *Id.* “Other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term. Because claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims.” *Id.* (citation omitted).

“Differences among claims can also be a useful guide in understanding the meaning of particular claim terms.” *Id.* That is referred to as “claim differentiation.” “For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Id.* at 1314-15.

C. Specification

The specification nevertheless remains important in claim construction. “The claims, of course, do not stand alone. Rather, they are part of ‘a fully integrated written instrument,’ consisting principally of a specification that concludes with the claims. For that reason, claims ‘must be read in

view of the specification, of which they are a part.’ * * * [T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* at 1315, quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d at 1576, 1582.

In particular, “[c]onsistent with that general principle,” the cases recognize that (1) “the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs,” and (2) “[i]n other cases, the specification may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor. In that instance as well, the inventor has dictated the correct claim scope, and the inventor’s intention, as expressed in the specification, is regarded as dispositive.” *Id.* at 1316.

However, two claim construction principles are: (1) claims are read in light of the specification, but (2) limitations from the specification must not be read into the claims. The line between the two is not always clear. See *Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186-87 (Fed. Cir. 1998) (“[T]here is sometimes a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification.”). In *Phillips*, the Federal Circuit advised that the “line between construing terms and importing limitations can be discerned with reasonable certainty and predictability if the court’s focus remains on understanding how a person of ordinary skill in the art would understand the claim terms. For instance, although the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments. In particular, we have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment. That is not just because section 112 of the Patent Act requires that the claims themselves set forth the limits of the patent grant, but also because persons of ordinary skill in the art rarely would confine their definitions of terms to the exact representations depicted in the embodiments.” *Phillips*, 415 F.3d at 1323 (citations omitted).

The Federal Circuit also advised: “[t]o avoid importing limitations from the specification into the claims, it is important to keep in mind that the purposes of the specification are to teach and enable those of skill in the art to make and use the invention and to provide a best mode for doing so. One of the best ways to teach a person of ordinary skill in the art how to make and use the invention is to provide an example of how to practice the invention in a particular case. Much of the time, upon reading the specification in that context, it will become clear whether the patentee is setting out specific examples of the invention to accomplish those goals, or whether the patentee instead intends for the

claims and the embodiments in the specification to be strictly coextensive. The manner in which the patentee uses a term within the specification and claims usually will make the distinction apparent.” *Id.* at 1323 (citations omitted).

Nevertheless, the Federal Circuit has acknowledged that, “[i]n the end, there will still remain some cases in which it will be hard to determine whether a person of skill in the art would understand the embodiments to define the outer limits of the claim term or merely to be exemplary in nature. While that task may present difficulties in some cases, we nonetheless believe that attempting to resolve that problem in the context of the particular patent is likely to capture the scope of the actual invention more accurately than either strictly limiting the scope of the claims to the embodiments disclosed in the specification or divorcing the claim language from the specification.” *Id.* at 1323-24.

D. Prosecution History

The words in the claim may also be interpreted in light of the prosecution history, if in evidence. *See Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1324 (Fed. Cir. 2002). “Like the specification, the prosecution history provides evidence of how the [United States Patent and Trademark Office (“PTO”)] and the inventor understood the patent. Furthermore, like the specification, the prosecution history was created by the patentee in attempting to explain and obtain the patent.” *Phillips*, 415 F.3d at 1317 (citations omitted).

“Yet because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Id.* “Nonetheless, the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.*

E. Level of Ordinary Skill in the Art

Claims are given the meaning a term would have to a person of ordinary skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1313.

Here, neither party has relied on any specific level of ordinary skill in the art, and thus the level of skill in the art is neither determinative nor decisive.

VI. Discussion

A. Eductor ('441, '398)

Again, the Parties' proposed constructions are:

Claim Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
Eductor ('441, '398)	Plain meaning Or A device for siphoning a chemical concentrate into a stream of diluent and mixing it with the diluent (e.g., water)	A single fluid passageway having a constriction to draw a chemical product (e.g., chemical concentrate) into a stream of diluent and mixing it with the diluent (e.g., water)

1. As Used in the Context of the Claims

Claim 1 of the '441 patent is representative:

1. A dispenser for dispensing different concentrations of chemical concentrate into a stream of water from a concentrate container at different flow rates comprising:

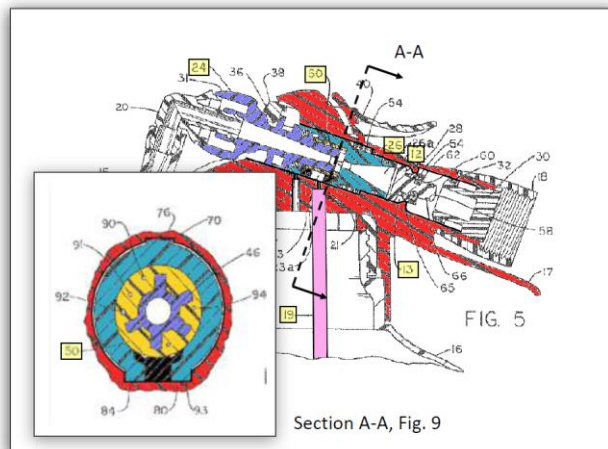
a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end and an outlet at the opposite end connected to the inlet end; and

an eductor at least partially disposed in the bore, the eductor being in fluid communication with a source of chemical concentrate and including a plurality of spaced apertures through which chemical concentrate flows, the eductor movable to different positions relative to the body member to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate to the outlet. (emphasis added)

Thus, the claim initially calls for an "eductor."

Diversey presented the following PowerPoint slides said to illustrate the disclosed preferred embodiment:

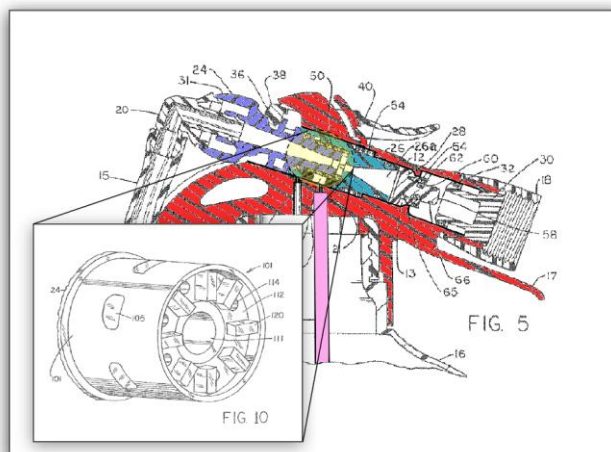
Eductor: Preferred Embodiment



Eductor, comprising (24) and (26):

- is at least partially disposed in the bore (13, **black outline**) of body member (12)
- is in fluid communication with a source of chemical concentrate via dip tube (19)
- includes a plurality of spaced apertures 90-94 in dilution adjustment member (50) through which chemical concentrate flows

Eductor: Preferred Embodiment



"As seen in both FIGS. 5 and 6, the seal member 23 has moved away from both the product and vent passages 21 and 25, respectively. In this position, drawn product is allowed to enter into one of the five passages 90, 91, 92, 93 and 94 of dilution adjustment member 50 as seen in FIG. 10. Concentrate is thereby siphoned into gap 27 and mixed with water flowing through passage 26a and 24a. A reduced pressure is caused by the water converging in passage 26a and diverging in passage 24a."

- 441 Patent, Col. 5, ll. 42-51; see also Figs. 6 & 9

Diversey's Markman Presentation at 14-15.

POPS presented the following PowerPoint slide said to illustrate the Parties' contentions:

1. Eductor

Diversey: Plain meaning, or if a construction is necessary: a device for siphoning a chemical concentrate into a stream of diluent and mixing it with the diluent (e.g., water).

POPS: A single fluid passageway having a constriction to draw a chemical product (e.g., chemical concentrate) into a stream of diluent and mixing it with the diluent (e.g., water).

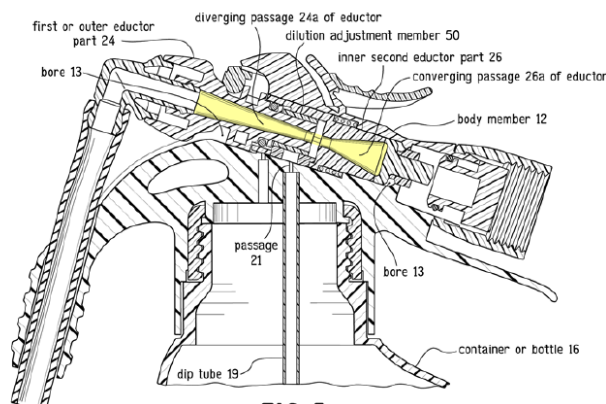


FIG. 5

Claim Construction: Eductor

POPS Markman Presentation at 11.

The term “eductor,” also known as a “jet pump,” as discussed briefly above, and further below, is commonly known by those of ordinary skill in the art. And is introduced in the claim as a term commonly known to those having ordinary skill in the art, *i.e.*, the claim introduces the term in a form and format that assumes the reader (one of ordinary skill in the art) will know an “eductor” is.

POPS, in its *Markman* presentation, urged:

Plain meaning of eductor (there isn't one)

Most “plain meanings” of eductor add complexity or
may provide incorrect definitions

POPS *Markman* Presentation at 12 (abbreviated view).

But, “plain meaning,” or more precisely “the words of a claim ‘are generally given their ordinary and customary meaning,’ ” 415 F3d. at 1312, as used by the Federal Circuit in *Phillips* and other cases, does not equate to a single definitional meaning applicable to all potential variations or iterations of an “eductor” – or any “definitional” meaning at all.

Indeed, the Federal Circuit in *Phillips* rejected the prior *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), approach to claim construction that emphasized resolving claim construction by first finding one or more dictionary or other definitions for disputed claim terms, and then (more or less) substituting such “definitions” for the actual terms used in the claims. And then using such “definitions” to decide infringement and/or validity *vel non*.

Rather, the Federal Circuit in *Phillips* acknowledged that “[i]n some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” 415 F.3d at 1314.

The Federal Circuit in *Phillips* further explained that “[b]ecause the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, the court looks to ‘those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.’ ” 415 F.3d at 1314.

Thus, the search at this juncture is for “those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.” That does not equate to a “definition” *per se* that definitively identifies an “educator” from a “non-educator.” Again, the Federal Circuit has rejected the *Texas Digital* line of cases.

There is ample evidence that “educator” has an “ordinary and customary meaning” to persons having ordinary skill in the field of the invention.

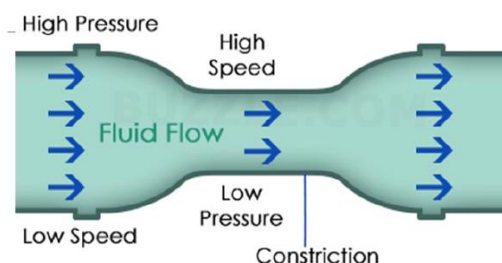
As noted above, the McGraw-Hill Dictionary of Scientific and Technical Terms (5th ed. 1994) at 641, explains that an “educator” in the field of engineering is “an ejector-like device for mixing two fluids.” The definition also includes “*See* ejector.” The corresponding entry for “ejector” explains that an “ejector” in the field of engineering is “[a]ny of various types of jet pumps used to withdraw fluid material from a space.” *Id.* at 647. The entry for “jet pump” explains that the same is “[a] pump in which an accelerating jet entrains a second fluid to deliver it at elevated pressure.” *Id.* at 1071.

Colloquial dictionaries are the same. For example, Merriam-Webster’s Collegiate Dictionary (10th ed. 1999) at 370, explains that “ejector,” in the field of the present invention, refers to “a jet pump for withdrawing a gas, fluid, or powdery substances from a space.”

Moreover, even a brief Internet search for “eductor” returned a large number of articles (more than 3 million) that, after reasonable sampling, explain “eductors” and give various examples. For instance, the website for Northeast Controls, Inc., in addition to offering a variety of “eductors” for sale, includes a section entitled “How Does An Eductor Work: How Does an Eductor (Jet Pump) Work?” explaining, *inter alia*, that “[e]ductors are a kind of jet-type pump that do not require any moving parts to be able to pump out a liquid or gas. These pumps make use of their structure to transfer energy from one fluid to another via the Venturi effect.” See <https://eductors.net/eductor-work/>. There are also a number of posted videos describing various “eductors.”

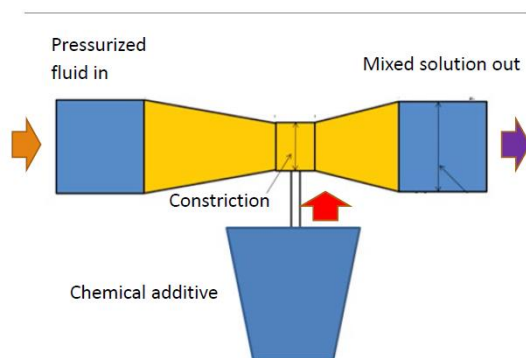
POPS, indeed, included the following slides in its *Markman* presentation discussing the “Venturi Effect” and application of that “Venturi Effect” to an “eductor:”

Venturi Effect



Physicist Giovanni Venturi (1746–1822). The Venturi effect is the decrease in pressure in a fluid resulting from an increase in fluid velocity through a constriction.

Practical Application of Venturi Effect Eductor/Venturi Chamber



POPS Markman Presentation at 2-3.

In the end, patents are written to read and understood by persons having ordinary skill in the art. The '441 patent explains that “[t]he field of the invention is dispensers for chemical concentrates, and particularly the dispensing of chemical concentrates at multiple flow rates and different concentrations.” ’441 patent, 1:21-25. Shamelessly borrowing from Justice Potter Stewart’s concurring opinion in *Jacobellis v. Ohio*, 378 U.S. 184, 197 (1964), there is ample evidence to conclude that a person of ordinary skill in the art of the invention “would know an eductor when he/she sees it.”

POPS asserts that “[t]he parties’ primary dispute appears to be whether the term refers to the parts that form a ‘single fluid passageway having a constriction,’ as POPS contends, or simply a generic ‘device’—unbounded by any structure, as Diversey argues.” POPS Op. Brief [Dkt. 69] at ECF 15. But, the claims do not call for a “single fluid passageway” – that comes from POPS proposed construction. The claims do, however, add further limitations. Namely, the claims are not drawn to a “generic” device “unbounded by any structure” as POPS asserts.

First, the claim language requires that “the eductor being in fluid communication with a source of chemical concentrate.” The claim language then adds “and including a plurality of spaced apertures through which chemical concentrate flows” (also a disputed term, addressed below).

It should be noted that the '441 patent explains that “[a] dispenser which dispenses chemical concentrate should have the capability of dispensing the concentration at a low rate such as in the instance where a bottle is to be filled and at a high rate where a bucket is to be filled. In the instance of a bucket fill, it is desirable if both a low and high concentration of chemical concentrate can be provided.” ’441 patent, 1:38-43.

Claim 1 in furtherance thereof, adds the limitation “the eductor movable to different positions relative to the body member to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate to the outlet.” There is no evidence of record that “generic” “eductors” (namely all “eductors”) are “movable to different positions relative to the body member to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate to the outlet.”

Additionally, various dependent claims, but only to the extent being asserted in this litigation,¹ add limitations to “eductor” – e.g., dependent claim 2 “wherein the eductor is composed of first and second parts, only one of which is rotatable,” dependent claim 3 “wherein the first part of the eductor is rotatable and extends from the body member,” dependent claim 4 “wherein the second part is nonrotatable, and the first and second parts of the eductor provide a fluid passage,” dependent claim 9, “wherein the eductor includes first and second parts and a gap between the first and second parts, and wherein the passages are in communication with the gap.”

Turning to POPS’ proposed construction, “[a] single fluid passageway having a constriction to draw a chemical product (e.g., chemical concentrate) into a stream of diluent and mixing it with the diluent (e.g., water),” POPS candidly concedes that at least its insistence on “[a] single fluid passageway” is intended to foster its non-infringement argument.

As noted above, in some instances, during claim construction, it is helpful to have knowledge of the accused products. *Lava Trading*, 445 F.3d at 1350. Nevertheless, claim construction cannot be driven by the effect on infringement or validity *vel non*. *Wilson Sporting Goods*, 442 F.3d 1326-27.

POPS argues that “[t]he accused products use a simple, multi-eductor system with two separate fluid passageways to mix chemical concentrate with diluent” POPS Op. Brief [Dkt. 69] at ECF 6. Thus, POPS argues that the accused device would not meet “[a] single fluid passageway” imposed through its proposed claim construction on “eductor.”

That is obviously ultimately an issue for resolution at the infringement stage of these proceedings. And cannot be resolved here.

However, to the extent that POPS is asserting “[a] single fluid passageway” limitation on “eductor,” POPS describes its slidable member has having “Eductor 1” and “Eductor 2,” for adjusting the flow rate between filling bottles versus buckets.

That is, the ’441 patent, once again, discloses that “[a] dispenser which dispenses chemical concentrate should have the capability of dispensing the concentration at a low rate such as in the instance where a bottle is to be filled and at a high rate where a bucket is to be filled. In the instance of a bucket fill, it is desirable if both a low and high concentration of chemical concentrate can be provided.” ’441 patent, 1:38-43.

¹ It is not clear from the Parties’ submissions what claims Diversey is currently asserting.

The accused POPS' MFMS Dispensers apparently have a slideable member that allows a user to select between, for example, filling a bottle at a low flow rate and a bucket at a high flow rate. According to POPS' description, "POPS product employs a dual-eductor system using an insertable piece that provides two separate fluid passageways forming two separate eductors to allow two different flow rates." POPS Op. Brief [Dkt. 69] at ECF 7.

But, insofar as understood as explained by POPS, such "dual-eductor system" in the accused device nevertheless creates "[a] single fluid passageway" depending on which "eductor" is selected. Namely, there is never a situation where more than "[a] single fluid passageway" is selected.

Accordingly, per *Wilson Sporting Goods*, 442 F.3d 1326-27, claim construction here is driven solely by the principles of claim construction with a blind eye to the potential impact on issues of infringement and/or validity. However, POPS' conceded reason for its proposed construction – to avoid infringement – does not seem to add weight to POPS' argument.

2. "Eductor" As Used in Specification

The term "eductor" is used in the specification and claims of the '441 patent (as an example) roughly 59 times.

Under the heading "Summary of the Invention," for example, the specification explains that:

The present invention provides a dispenser for dispensing different concentrations of chemical concentrate into a stream of water from a concentrate container at different flow rates. The dispenser includes a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end and an outlet at the opposite end connected to the inlet housing. A valve member is slideably positioned in the through bore of the body member. An eductor is slideably and rotatably received in the body member. The eductor is in contact with the valve member and in fluid communication with a source of chemical concentrate. A trigger member is connected to the body member and eductor to cause slideable movement of the eductor. The eductor and valve member are constructed and arranged to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate.

In a preferred embodiment, the eductor is composed of first and second parts with only the first part being rotatable and extending from the body member.

In another embodiment, a second part of the eductor is nonrotatable and includes a fluid passage. A dilution adjustment member having a multiplicity of different sized apertures is connected to the rotatable eductor for sealable engagement with the fluid passage. (emphasis added)

'441 patent, 1:54-2:11.

POPS has not shown that “eductor” has been used – anywhere – in the specification to connote other than its “ordinary and customary meaning” to persons having ordinary skill in the field of the invention.

3. Recommendation

Accordingly, for the foregoing reasons, the master recommends that the Court construe “eductor” according to “ordinary and customary meaning” of “eductor” to persons having ordinary skill in the field of the invention. If further explanation is necessary or desirable, an “eductor” in the field of engineering is “an ejector-like device for mixing two fluids,” that is “[a]ny of various types of jet pumps used to withdraw fluid material from a space,” “in which an accelerating jet entrains a second fluid to deliver it at elevated pressure.”

B. Through Bore ('441)/Bore ('398)

The Parties' proposed constructions are –

Claim Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
Through Bore ('441)	Plain meaning Or A hollow passageway for receiving an eductor, wherein the passageway passes or extends through the body	A cylindrical hole with a longitudinal axis through the body member from the source of pressurized water to the exit from the body member
Bore ('398)	Plain meaning Or A hollow passageway for receiving an eductor, wherein the passageway passes or extends into or through the body	A cylindrical hole with a longitudinal axis through the body member from the source of pressurized water to the exit from the body member

1. As Used in the Context of the Claims

Claim 1 of the '441 calls for:

1. A dispenser for dispensing different concentrations of chemical concentrate into a stream of water from a concentrate container at different flow rates comprising:

a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end and an outlet at the opposite end connected to the inlet end; and

an eductor at least partially disposed in the bore, the eductor being in fluid communication with a source of chemical concentrate and including a plurality of spaced apertures through which chemical concentrate flows, the eductor movable to different positions relative to the body member to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate to the outlet. (emphasis added)

Claim 1 of the '398 patent calls for:

1. A dispenser comprising:

a body including a bore and an inlet fluidly coupled to the bore and adapted to be connected to a source of pressurized water;

an eductor at least partially disposed in the bore and defining a fluid passage, the eductor slidable relative to the body to provide control of different flow rates of a mixture of water and chemical concentrate from the fluid passage to an outlet;

a product passage connected between the container and the body to selectively provide chemical concentrate to the fluid passage;

a nozzle fluidly coupled to the eductor; and

a spout fluidly coupled to the nozzle and configured to discharge the water and chemical concentrate to a reservoir, the spout positioned below the nozzle and extending generally downward from the nozzle such that the mixture of water and chemical concentrate is configured to discharge in the generally downward direction.

Claim 1 of the '441 patent thus calls for “a body member having a through bore.” The claim further provides that the “through bore” has “an inlet end adapted to be connected to a source of pressurized water at one end” and “an outlet at the opposite end connected to the inlet end.”

Thus, the “through bore” is in the “body member.” That “through bore” has an “inlet end” and an “outlet” at the opposite end “connected to the inlet end.” The “inlet end” is “adapted to be connected to a source of pressurized water.”

Claim 1 of the '398 patent calls for “a body including a bore.” The claim further provides that the “body” has an “inlet” that is “fluidly coupled to the bore” and “adapted to be connected to a source of pressurized water.”

In terms of the claim language, therefore, both the '441 and '398 patents call for “a body” that has a “through bore” and “bore,” respectively. The distinction between the claims seems to be that in the '441 patent, the “through bore” is recited as having “an inlet end adapted * * *.” While the '398 patent recites that the “body” includes a “bore” and that the body has an “inlet” that is “fluidly coupled to the bore” which is “adapted * * *.”

2. As Used in Specification

In the '441 specification, the term “through bore” is used four times – once in claim 1, once in claim 13, and twice in the first paragraph under the heading “Summary of the Invention”:

The present invention provides a dispenser for dispensing different concentrations of chemical concentrate into a stream of water from a concentrate container at different flow rates. The dispenser includes a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end and an outlet at the opposite end connected to the inlet housing. A valve member is slideably positioned in the through bore of the body member. An eductor is slideably and rotatably received in the body member. The eductor is in contact with the valve member and in fluid communication with a source of chemical concentrate. A trigger member is connected to the body member and eductor to cause slideable movement of the eductor. The eductor and valve member are constructed and arranged to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate.

'441 patent, 1:54-2:3.

On the other hand, the specification and claims of the '441 patent uses “bore” fourteen times (four in conjunction with “through”), thus “bore” alone is used ten times. In the claims, “through bore” is used to provide antecedent basis for “the bore” in claims 1, 13 and 15.

In the specification of the '441 patent, “bore” is most commonly used to refer to “bore 13,” for example, “[a] dip tube 19 is connected to body member 12 and extends into container 16 for siphoning chemical concentrate into the bore 13 of body member 12 by way of passage 21. A seal member 23 is placed between dilution adjustment member 50 and body member 12. A vent passage 25 connects container 16 and bore 13.” '441 patent, 4:1-6.

The specification of the '398 patent, which was filed as a continuation of Application Ser. No. 13/619,800, now the '441 patent, uses “through bore” twice – in the first paragraph under the heading

“Summary of the Invention.” That paragraph, ’398 patent, 1:56-2:5, is the same as the corresponding paragraph in the ’441 patent quoted above. Which, of course, would be expected given that the ’398 patent was filed as a continuation of the ’441 patent.

The ’398 patent uses “bore” nineteen times in the claims and specification. The specification, in describing the drawings, refers to “bore 13” like the same references in the ’441 parent patent. And refers to the same “bore” depicted in the drawings as the ’441 patent. All of which, again, is to be expected given that the ’398 patent was filed as a continuation of the ’441 patent.

Thus, “bore” is used in the specifications of both the ’398 and ’441 patents to refer to the same element in the commonly shared drawings, namely “bore 13.” The sole instance in which “through bore” is used in the ’398 patent is in the first paragraph under the heading “Summary of the Invention,” which paragraph is shared by both the ’398 and ’441 patents.

The sole distinction between the ’398 and ’441 patent *vis-à-vis* “through bore” and “bore” appears, once again, to be that claim 1 of the ’441 patent calls for “a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end * * *,” whereas claim 1 of the ’398 patent calls for “a body including a bore and an inlet fluidly coupled to the bore and adapted to be connected to a source of pressurized water * * *.”

3. Discussion

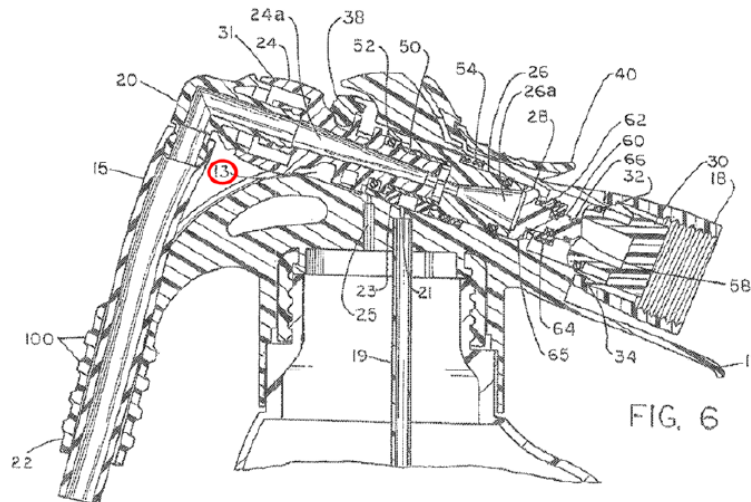
Primarily the Parties dispute whether “bore” (whether in the form of “through bore” or “bore”) requires, per POPS’ proposed construction “[a] cylindrical hole with a longitudinal axis through the body member”

POPS contends that “there is no question that ‘bore’ in the patents-in-suit is a cylindrical hole.” POPS Op. Brief [Dkt. 69] at ECF 10. POPS further contends that “[t]he ordinary meaning of the term ‘bore’ is ‘a usu[ally] cylindrical hole made by or as if by boring.’” *Id.*, quoting Merriam-Webster’s Collegiate Dictionary 144 (11th ed. 2003) (defining “bore”).

POPS presented, *inter alia*, the following PowerPoint slide during its *Markman* presentation:

Bore

Bore is numbered element (13) in the drawings



Bore requires a narrower construction than terms such as channel, tunnel or passage. A bore is a cylindrical hole while a channel, tunnel or passage can have a more general configuration.

E.g.: Merriam-Webster's Collegiate Dictionary 144 (11th ed. 2003) (defining "bore" as a "cylindrical hole made by or as if by boring).

POPS Markman Presentation at 20.

Diversey presented the following slides illustrating its arguments:

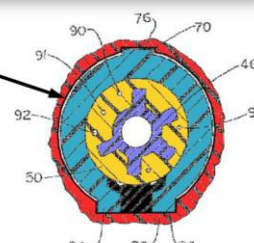
Through Bore / Bore: Preferred Embodiment

The patent drawings show that the bore (outlined in black) is a hollow passageway that receives the eductor.



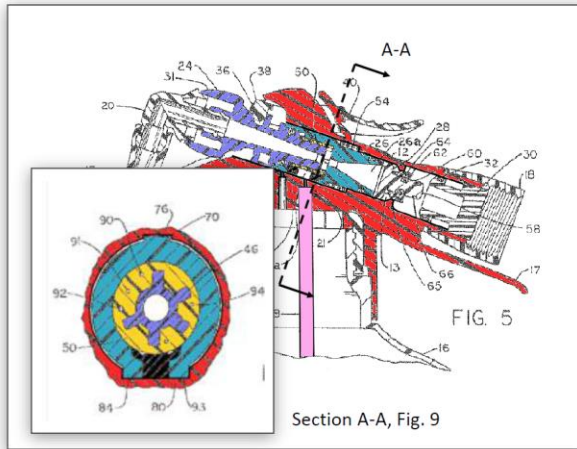
'441 Patent, Fig. 5 (annotations added).

Bore



'441 Patent, Fig. 9 (annotations added).

Through Bore / Bore



'441 Claim 1

an eductor at least partially disposed in the bore, the eductor being in fluid communication with a source of chemical concentrate and including a plurality of spaced apertures through which chemical concentrate flows, the eductor movable to different positions relative to the body member to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate to the outlet.

'398 Claim 1

an eductor at least partially disposed in the bore and defining a fluid passage, the eductor slidable relative to the body to provide control of different flow rates of a mixture of water and chemical concentrate from the fluid passage to an outlet;

'398 Claims 8 & 15

an eductor at least partially disposed in the bore and defining a fluid passage, the eductor configured to control one or more flow rates of water and chemical concentrate through an outlet of the dispenser;

Through Bore / Bore

• "Through Bore" v. "Bore"

'441 Claim 1

a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end and an outlet at the opposite end connected to the inlet end; and

'398 Claims 1, 8, & 15

a body including a bore and an inlet fluidly coupled to the bore and adapted to be connected to a source of pressurized water;

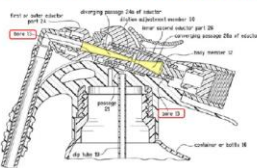
"[D]ifferent words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope."

Karlin Tech., Inc. v. Surgical Dynamics, Inc., 177 F.3d 968, 971-72 (Fed. Cir. 1999)

Through Bore / Bore

• POPS's "longitudinal axis" limitation is read in from the embodiments

POPS Claim Construction Argument



(See '398 Patent at 8, Fig. 4 (descriptive labels and color added, immaterial references omitted).) This embodiment illustrates a bore that passes through the body and not something that merely extends into the body. (See also *id.* at 8-9, Figs. 4 and 5 (identifying on the right side of the figure the bore 13 at the inlet end where water enters the body); *id.* at 10, Fig. 6 (showing the bore 13 at the outlet where the mixed solution exits the body).)

Nothing in the patent specification or claims requires that the bore have a "longitudinal axis through the body member from the source of pressurized water to the exit from the body member," as proposed by POPS.

"[W]e do not read limitations from the embodiments in the specification into the claims."

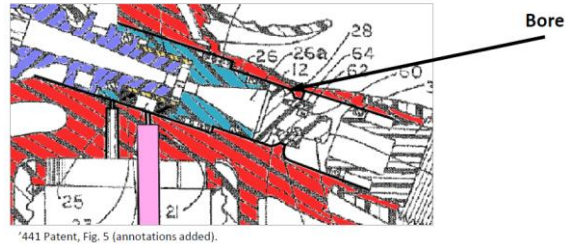
Hill-Rom Servs., Inc. v. Stryker Corp., 755 F.3d 1367, 1371 (Fed. Cir. 2014)

Dkt. 73 at 18.

Through Bore / Bore

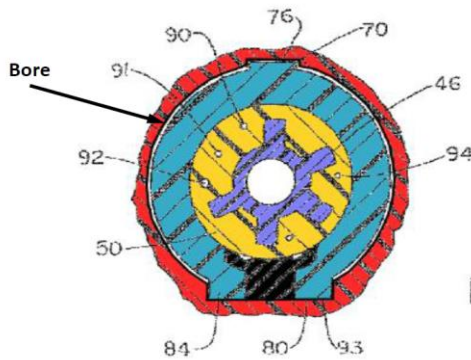
- POPS's "cylindrical" limitation excludes the preferred embodiment

The bore of the preferred embodiment has varying widths



Through Bore / Bore

- POPS's "cylindrical" limitation excludes the preferred embodiment



The bore of the preferred embodiment has a combination of curved and linear sides, including top and bottom keyways 70 and 80

"A **keyway 70** is disposed in body member **12** for accommodating a key member **76** (See FIG. 9) in eductor part **26** for allowing **sliding but nonrotatable connection in body member 12**. A second opposing **keyway 80** is also disposed in body member **12** in conjunction with key member **84**."

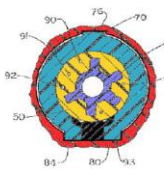
- '441 Patent, Col. 4, ll. 21-26; see also Fig. 8 & 9

Through Bore / Bore

"For the eductor (which adjusts the dilution) to be rotatable inside the body, it must sit inside a cylindrical passageway." Dkt. 73 (POPS Resp. Br.) at 12.

- The claims do not recite a "rotatable" eductor
- And a cylindrical bore is not necessary for a "rotatable" eductor to work

The patent drawings show that **eductor part 24** and **dilution adjustment mechanism 50** are rotatable within **eductor part 26**



"... the concentration of the solution can be easily adjusted by the rotation of the **eductor 24** ..."

- '441 Patent, Col. 6, ll. 3-4.

See, e.g., '441 Patent, Col. 4, ll. 17-31; Col. 6, ll. 3-5; Figs. 3, 5, 7 & 9.

Diversey's Markman Presentation at 26-32.

POPS adds that “courts across the country have held that the term ‘bore’ refers to something cylindrical.” *Id.*, citing *Aqua-Lung Am., Inc. v. Am. Underwater Prods., Inc.*, No. C 07-2346 RS, 2009 WL 498561, at *5 (N.D. Cal. Feb. 26, 2009). In its response, POPS additionally relies on *Young Dental Manufacturing Co. v. Q3 Special Products, Inc.*, 112 F.3d 1137, 1142 (Fed. Cir. 1997).

But POPS' contention is undermined by that dictionary itself. The reference to “usu.” means that, as a definition, a “bore” may be “usually” cylindrical, but is not required to be. Namely, calling for a “bore” in a patent claim does not require that the “bore” be cylindrical absent other language so limiting the claim. Here, as Diversey notes above, there is no other claim language that requires that the “bore” be “cylindrical.”

Additionally, the dictionary definition that POPS relies on defines “bore” in terms of how the “bore” is made – “made by or as if by boring.” But the claim language does not specify how the “bore” is made. Namely, the claim language simply calls for a “bore,” however made, whether using “boring,” or through a number of manufacturing processes, for example molding, extrusion, *etc.*

The cases that POPS relies on are neither persuasive nor particularly helpful. Those all involved different patents, different products, different claims, and the list continues.

POPS also argues that “in each embodiment of the Specification, the applicants show a ‘bore’ (13) extending through an elongated cylindrical body (12) and a cylindrically shaped eductor (24 and 26) disposed in the bore.” POPS Op. Brief [Dkt. 69] at ECF 10. POPS points to drawing figures, but not the specification.

The Parties dispute whether the drawings actually show a “cylindrical” shape for those members, and Diversey contends such a limitation would exclude the preferred embodiment. *See* Diversey's Markman Presentation at 31-32, Diversey Op. Brief [Dkt. 70] at ECF 14.

In all events, though, the Federal Circuit in *Phillips* was clear that “although the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments,” even when a “patent describes only a single embodiment,” the claims should not “be construed as being limited to that embodiment.” 415 F.3d at 1323. *See also, Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) (“this court has expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment. * * * Even when the specification

describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using ‘words or expressions of manifest exclusion or restriction.’ ”).

POPS’ proposed construction also requires a “longitudinal axis,” *i.e.*, “[a] cylindrical hole with a longitudinal axis through the body member from the source of pressurized water to the exit from the body member.”

Here, POPS seems to rely on “through bore.” Namely POPS argues that “[i]n Claim 1 of the ’441 Patent, the bore is also called a ‘through bore,’ and it necessarily runs from its ‘inlet end adapted to be connected to a source of pressurized water at one end’ to an ‘outlet at the opposite end connected to the inlet end.’ * * * There is only one way to orient a bore that is consistent with this claim language, and that requires doing so as the Specification demonstrates: longitudinally from the source of pressurized water to the exit.” POPS Op. Brief [Dkt. 69] at ECF 16.

However, nothing in the specifications or claims require that the “bore” have a “longitudinal axis through the body member from the source of pressurized water to the exit from the body member,” as proposed by POPS.

4. Recommendation

The term “bore” is a common widely used English language term. Nothing in either the ’441 or ’398 patents suggests that the patentees intended to ascribe any special or idiosyncratic meaning for the term.

The function of the Court in “construing” claims is not to “rewrite” the claims, *K-2 Corp. v. Salomon S.A.*, 191 F.3d at 1364, “[c]ourts do not rewrite claims; instead, we give effect to the terms chosen by the patentee.” Rather, as the Federal Circuit advised in *O2 Micro International Ltd. v. Beyond Innovation Technology Co., Ltd.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008), “[t]he purpose of claim construction is to ‘determin[e] the meaning and scope of the patent claims asserted to be infringed.’ * * * When the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute.”

In resolving the dispute between the Parties, here it suffices to reject POPS’ proposed construction, *i.e.*, “[a] cylindrical hole with a longitudinal axis through the body member from the source of pressurized water to the exit from the body member.”

Namely, there is no need to further “define” a “bore,” a common term plainly understood by one of ordinary skill in the art.

C. Inlet End ('441)/One End ('441)/Opposite End ('441)/Inlet ('398)/Outlet ('441, '398)

The Parties’ proposed constructions are --

Claim Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Inlet End ('441)	Plain meaning Or A part of the bore’s boundary containing an opening for entrance or intake of water	Plain meaning Or The end of the bore for entrance or intake of water
One End ('441)	Plain meaning Or One part of the bore located at its boundary	The “inlet end”
Opposite End ('441)	Plain meaning Or The part of the bore located at its boundary opposite the one end	Plain meaning Or The end of the bore that is opposite the inlet end
Inlet ('398)	Plain meaning Or An opening for entrance or intake of water	An opening in the body for entrance or intake of water
Outlet ('441, '398)	Plain meaning Or An opening for exit of a mixture of water and chemical concentrate	An opening in the body for exit of a mixture of water and chemical concentrate

1. As Used in the Context of the Claims

Claim 1 of the '441 patent calls for:

1. A dispenser for dispensing different concentrations of chemical concentrate into a stream of water from a concentrate container at different flow rates comprising:

a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end and an outlet at the opposite end connected to the inlet end; and

an eductor at least partially disposed in the bore, the eductor being in fluid communication with a source of chemical concentrate and including a plurality of spaced apertures through which chemical concentrate flows, the eductor movable to different positions relative to the body member to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate to the outlet. (emphasis added)

Claim 1 of the '398 patent calls for:

1. A dispenser comprising:

a body including a bore and an inlet fluidly coupled to the bore and adapted to be connected to a source of pressurized water;

an eductor at least partially disposed in the bore and defining a fluid passage, the eductor slidable relative to the body to provide control of different flow rates of a mixture of water and chemical concentrate from the fluid passage to an outlet;

a product passage connected between the container and the body to selectively provide chemical concentrate to the fluid passage;

a nozzle fluidly coupled to the eductor; and

a spout fluidly coupled to the nozzle and configured to discharge the water and chemical concentrate to a reservoir, the spout positioned below the nozzle and extending generally downward from the nozzle such that the mixture of water and chemical concentrate is configured to discharge in the generally downward direction.

2. Discussion

The terms “inlet end,” “one end,” “opposite end,” “inlet,” and “outlet” are common, widely used, English language terms the meanings of which are clear from the context in which those terms are used in the asserted claims.

The only “dispute” seems to arise from differences between the Parties’ respective proposed constructions, plainly crafted to support or rebut infringement/non-infringement contentions, as opposed to any true disagreement on how one of ordinary skill in the art would construe these terms.

For example, Diversey’s proposed construction for “inlet end,” “one end,” and “opposite end,” refer to “[a] part of the bore’s boundary” or “[o]ne part of the bore located at its boundary,” or “[t]he part of the bore located at its boundary opposite the one end.” But, neither the claims nor the specification so describe those terms.

Diversey also argues that “‘Outlet’ is not an ‘end’ term.” Diversey’s Markman Presentation at 42.

POPS, on the other hand, urges through its proposed constructions that “inlet” in the ’398 patent means “[a]n opening in the body for entrance or intake of water, and similarly, “outlet” in the ’441 and ’398 patents means “[a]n opening in the body for exit of a mixture of water and chemical concentrate.”

Again, patents are written to be reviewed and understood by one of ordinary skill in the art. The Parties have presented no evidence whatsoever that a person of ordinary skill in the art would be unable to properly construe “inlet end,” “one end,” “opposite end,” “inlet,” and “outlet,” all common, widely used, English language terms the meanings of which are clear from the context in which those terms are used in the asserted claims.

And also, again, the function of the Court in “construing” claims is not to “rewrite” the claims, *K-2 Corp. v. Salomon S.A.*, 191 F.3d at 1364. “[C]laim construction is not philosophy; we need not wring our hands when considering the implications of a metaphysical analysis of claim terms. Instead, we need only recognize that claim construction is firmly anchored in reality by the understanding of those of ordinary skill in the art.” *Id.* at 1365. “Manufactured” disputes over the meaning of claim language through litigation inspired “proposed constructions” does not equate to true disagreements among persons having ordinary skill in the art.

3. Recommendation

In resolving the dispute between the Parties, here it suffices to note that the Parties have provided no evidence whatsoever that a person of ordinary skill in the art would be unable to resolve the customary and ordinary meanings for “inlet end,” “one end,” “opposite end,” “inlet,” and “outlet” as those terms are used in the context of the claims.

Accordingly, the master recommends that the Court adopt the “customary and ordinary meanings” for “inlet end,” “one end,” “opposite end,” “inlet,” and “outlet” in the context of the claims in which those terms appear. If that results in an unclear issue *vis-à-vis* infringement/validity for the jury under *O2 Micro*, 521 F.3d at 1360, the Parties may request further clarification, but solely to the extent resolution of the same has a described impact on any infringement/validity issue in this case.

D. Chemical Concentrate

The Parties' proposed constructions are –

Claim Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
Chemical Concentrate	Plain meaning Or A chemical product to be mixed with a diluent (e.g., water)	A chemical product prior to any mixing with a diluent (e.g., water)

1. As Used in the Context of the Claims

Claim 1 of the '441 patent calls for:

1. A dispenser for dispensing different concentrations of chemical concentrate into a stream of water from a concentrate container at different flow rates comprising:

a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end and an outlet at the opposite end connected to the inlet end; and

an eductor at least partially disposed in the bore, the eductor being in fluid communication with a source of chemical concentrate and including a plurality of spaced apertures through which chemical concentrate flows, the eductor movable to different positions relative to the body member to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate to the outlet. (emphasis added)

Claim 1 of the '398 patent calls for:

1. A dispenser comprising:

a body including a bore and an inlet fluidly coupled to the bore and adapted to be connected to a source of pressurized water;

an eductor at least partially disposed in the bore and defining a fluid passage, the eductor slidable relative to the body to provide control of different flow rates of a mixture of water and chemical concentrate from the fluid passage to an outlet;

a product passage connected between the container and the body to selectively provide chemical concentrate to the fluid passage;

a nozzle fluidly coupled to the eductor; and

a spout fluidly coupled to the nozzle and configured to discharge the water and chemical concentrate to a reservoir, the spout positioned below the nozzle and

extending generally downward from the nozzle such that the mixture of water and chemical concentrate is configured to discharge in the generally downward direction.

2. As Used in Specification

The '441 patent uses "chemical concentrate" 27 times, beginning with the abstract:

A dispenser for mixing and dispensing a liquid chemical concentrate with a diluent from a container. The dispenser includes two slideable eductors one of which is also rotatable. Both a high and low flow rate can be obtained with simultaneous adjustment of concentration of the chemical concentrate. The dispenser has a high degree of accuracy of the amount of dilution of the chemical concentrate as well as positive positioning of the high and low flow rate.

'441 patent, abstract.

Thereafter, the specification uses "chemical concentrate" in the context of, for example:

- "The field of the invention is dispensers for chemical concentrates, and particularly the dispensing of chemical concentrates at multiple flow rates and different concentrations." '441 patent, 1:21-24.
- "A dispenser which dispenses chemical concentrate should have the capability of dispensing the concentration at a low rate such as in the instance where a bottle is to be filled and at a high rate where a bucket is to be filled. In the instance of a bucket fill, it is desirable if both a low and high concentration of chemical concentrate can be provided." '441 patent, 1:38-43.
- "The present invention provides a dispenser for dispensing different concentrations of chemical concentrate into a stream of water from a concentrate container at different flow rates." '441 patent, 1:54-56
- "The eductor is in contact with the valve member and in fluid communication with a source of chemical concentrate." '441 patent, 1:63-65.
- "A trigger member is connected to the body member and eductor to cause slideable movement of the eductor. The eductor and valve member are constructed and arranged to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate." '441 patent, 1:65-2:3.
- "A general object of the invention is to provide a dispensing apparatus which can effect a mixing of chemical concentrate into a stream of water at different concentrations and dispense the mixed concentrate at controlled flow rates." '441 patent, '441 patent, 2:40-43.

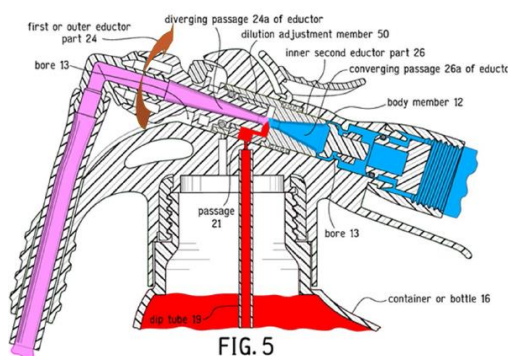
3. Arguments

POPS urges that “chemical concentrate” should be construed as “[a] chemical product prior to any mixing with a diluent (e.g., water)” and offered the following PowerPoint slide during its *Markman* presentation:

4. Chemical Concentrate

Diversey: Plain meaning, or if a construction is necessary: a chemical product to be mixed with a diluent (e.g., water)

POPS: A chemical product prior to any mixing with a diluent (e.g., water).



POPS *Markman* Presentation at 24.

But POPS nowhere points to the specification as limiting “chemical concentrate” to a chemical product prior to any mixing with a diluent (e.g., water).

Just a brief review of Internet sources reveals that “[i]n chemistry, ‘concentrated’ refers to a relatively large quantity of substance present in a unit amount of a mixture. Usually, this means there is a lot of a solute dissolved in a given solvent.” <https://www.thoughtco.com/definition-of-concentrated-605843>.

Similarly, the McGraw-Hill Dictionary of Scientific and Technical Terms (5th ed. 1994) at 430 explains that “concentrate,” in the field of chemistry, refers to “[t]o increase the amount of a dissolved substance by evaporation,” and that “concentration,” again the field of chemistry, refers to “[i]n solutions, the mass, volume, or number of moles of solute present in proportion to the amount of solvent or total solution.” Namely, a “concentrated” form of a chemical does not preclude use of a dilution, as contrasted with calling for a “pure” or “100%” form of a chemical.

Common experience is that products, such as Clorox, primarily chlorine and sodium hydroxide, are sold in various “concentrations,” all of which are labeled “concentrate” or “concentrated.” Insofar as is known, a “concentrate” does not commonly mean to one of ordinary skill in the art the complete absence of a dilutant. After all, a solution of 100% chlorine and sodium hydroxide with no dilution would be lethal to humans.

Namely, POPS has offered no true support for its proposed construction. POPS presented only one slide at the *Markman* hearing devoted to the issue, POPS Markman Presentation at 24. Which offers no support whatsoever for POPS’ proposed construction.

The specification and claims refer to a “chemical concentrate.” But do not further limit the “concentration” to any particular range of concentrations. The specification and claims certainly do not support POPS’ proposed construction that would limit “chemical concentrate” to a chemical product prior to any mixing with a diluent (e.g., water).

4. Recommendation

Again, in terms of claim construction, it is the Court’s obligation under *O2 Micro* to resolve truly disputed meanings of claim language.

Resolution of the Parties’ dispute *vis-à-vis* “chemical concentrate” is sufficient to reject POPS’ proposed construction, and adopt Diversey’s proposed construction of “[a] chemical product to be mixed with a diluent (e.g., water).”

E. Plurality of Spaced Apertures Through Which Chemical Concentrate Flows (’441)

Claim Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Plurality of Spaced Apertures Through Which Chemical Concentrate Flows (’441)	Plain meaning Or Two or more openings, holes, or gaps positioned at a distance from each other and configured to allow chemical concentrate to pass through	Two or more openings, holes or gaps positioned at a distance from each other to allow only chemical concentrate to pass through

1. As Used in the Context of the Claims

Claim 1 of the '441 patent is representative:

1. A dispenser for dispensing different concentrations of chemical concentrate into a stream of water from a concentrate container at different flow rates comprising:

a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end and an outlet at the opposite end connected to the inlet end; and

an eductor at least partially disposed in the bore, the eductor being in fluid communication with a source of chemical concentrate and including a plurality of spaced apertures through which chemical concentrate flows, the eductor movable to different positions relative to the body member to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate to the outlet. (emphasis added)

POPS argues that “the POPS product has no ‘plurality of spaced apertures through which chemical concentrate flows.’ Instead, POPS has two separate eductors and the only substances that flow through the two separate input and output apertures in the POPS device are either water through the inlet or diluted chemical through an outlet. For this reason, Diversey urges an unreasonably broad construction under which (1) the apertures must simply be ‘configured to allow chemical concentrate to pass through,’ leaving open the possibility that diluted chemical might also flow through them and (2) ‘chemical concentrate’ is chemical concentrate both before and after it is diluted. The Court should reject both of these proposals.” POPS Resp. Brief [Dkt. 73] at ECF 22-23.

POPS argues that “Diversey’s first contention is inconsistent with the plain claim language, which makes clear that in this invention, only chemical concentrate flows through the apertures. (POPS’s Opening Br. at 18.) Indeed, the dispenser only works when chemical concentrate flows through the apertures to meet the flow of water. Diversey’s proposal instead, would broaden the claim to cover technology when no chemical concentrate flows through the apertures.” *Id.*

POPS further argues that “[t]his Court also should reject Diversey’s second contention because it would render the term ‘concentrate’ meaningless. If a chemical concentrate is diluted with water and is still chemical concentrate, then there is no difference between ‘chemical concentrate’ and ‘chemical product,’ and no need to use the term ‘chemical concentrate’ at all in the Patent. But the Patent uses the term ‘chemical concentrate’ for a reason. As the Specification demonstrates, the invention contemplates concentrated chemical product that is drawn into the eductor and mixed with

water, becoming a ‘mixed solution’ that then exits the dispenser.” POPS Resp. Brief [Dkt. 73] at ECF 24.

2. Discussion

This dispute is largely resolved by the dispute over “chemical concentrate” above.

As understood, POPS begins by limiting “chemical concentrate” to “[a] chemical product prior to any mixing with a diluent (e.g., water),” (which has been rejected above), and then adds that the “plurality of spaced apertures through which chemical concentrate flows,” or as POPS advocates “[t]wo or more openings, holes, or gaps positioned at a distance from each other to allow only chemical concentrate to pass through.” POPS Markman Presentation at 25.

POPS adds that “Diversey uses the term chemical concentrate after it has been mixed with water. At that point it is no longer a ‘concentrate.’” *Id.*

But that has been addressed above in the context of “chemical concentrate.” The term “chemical concentrate” does not require (at least insofar as dictated by the Parties’ submissions) a 100% pure “chemical.” Far from it. The term “chemical concentrate” alone does not identify the “degree” of “concentration.”

Once again, common experience, for example, is that one may purchase “concentrated” cleaning products, such as “concentrated” versions of “Clorox,” in which the active ingredient is primarily chorine. But even in “concentrated” versions, the chorine is a minor part of the product.

The disputed term is “plurality of spaced apertures through which chemical concentrate flows.” The Parties agree, except for a disagreement over “chemical concentrate,” that means “[t]wo or more openings, holes, or gaps positioned at a distance from each other and configured to allow chemical concentrate to pass through” [Diversity] vs. “[t]wo or more openings, holes or gaps positioned at a distance from each other to allow only chemical concentrate to pass through” [POPS]

The only difference is “to allow chemical concentrate to pass through” [Diversey] vs. “to allow only chemical concentrate to pass through.” [POPS] Given the resolution of the “chemical concentrate” issue, Diversey’s is the plainly the correct construction.

3. Recommendation

Accordingly, in light of the foregoing, the master recommends that the Court construe “a plurality of spaced apertures through which chemical concentrate flows” in claim 1 of the ’441 patent

as “two or more openings, holes, or gaps positioned at a distance from each other and configured to allow chemical concentrate to pass through” as proposed by Diversey.

F. To Selectively Provide Chemical Concentrate to the Fluid Passage ('398)

The Parties' proposed constructions are –

Claim Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
To Selectively Provide Chemical Concentrate to the Fluid Passage ('398)	Plain meaning Or Provide chemical concentrate to the fluid passage as chosen by a user	Provide more than one non-zero amount of chemical concentrate to the fluid passage

1. As Used in the Context of the Claims

Claim 1 of the '398 patent calls for:

1. A dispenser comprising:

a body including a bore and an inlet fluidly coupled to the bore and adapted to be connected to a source of pressurized water;

an eductor at least partially disposed in the bore and defining a fluid passage, the eductor slidable relative to the body to provide control of different flow rates of a mixture of water and chemical concentrate from the fluid passage to an outlet;

a product passage connected between the container and the body to selectively provide chemical concentrate to the fluid passage;

a nozzle fluidly coupled to the eductor; and

a spout fluidly coupled to the nozzle and configured to discharge the water and chemical concentrate to a reservoir, the spout positioned below the nozzle and extending generally downward from the nozzle such that the mixture of water and chemical concentrate is configured to discharge in the generally downward direction.

Although Diversey provides separate proposed constructions for “product passageway” and “to selectively provide chemical concentrate to the fluid passage,” while POPS focusses on “to selectively provide chemical concentrate to the fluid passage,” POPS Op. Brief [Dkt. 69] at ECF 26, the claim language is clear that the “product passage connected between the container and the body” are serving to “selectively provide chemical concentrate to the fluid passage.”

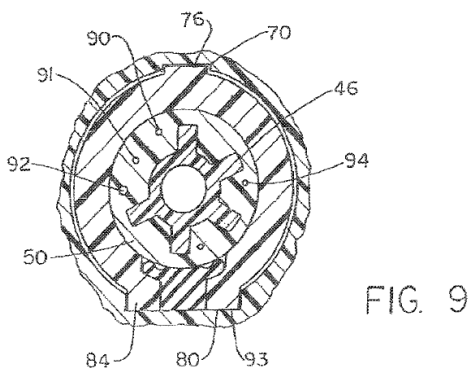
POPS argues that “[t]he parties dispute only (1) whether the amount of chemical concentrate provided into the fluid passage must be more than zero (as POPS argues) and (2) whether the Patent provides that a user chooses the amount of chemical concentrate to provide (as Diversey argues).” POPS Op. Brief [Dkt. 69] at ECF 26.

2. As Used in Specification

The language of Claim 1 is clear – the “product passage” is “connected between the container and the body.” Other claims in the ’398 patent similarly provide “a product passage connected between the container and the body,” claim 8, and “a product passage connected between the container and the body,” claim 15.

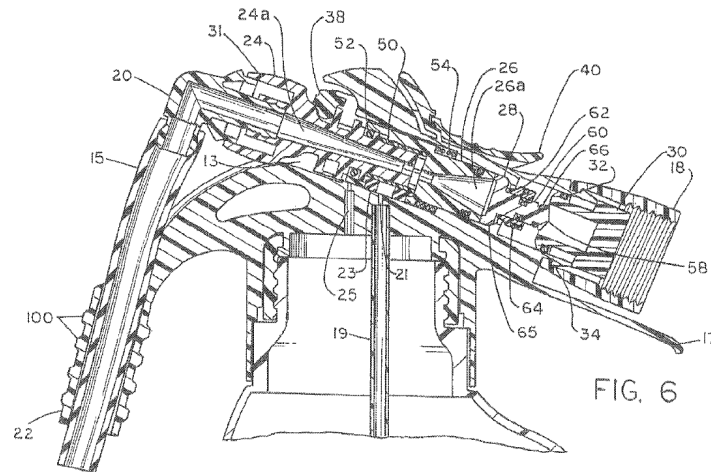
The ’398 specification explains that “[i]n one aspect, the body member includes a product passage and a vent passage. A seal is constructed and arranged to seal both the product passage and the vent passage.” ’398 patent, 2:14-17.

In reference to Fig. 9, which is described in the ’398 patent as “FIG. 9 is a cross sectional view of the dilution adjustment member utilized in the dispenser,” ’398 patent, 3:14-15:

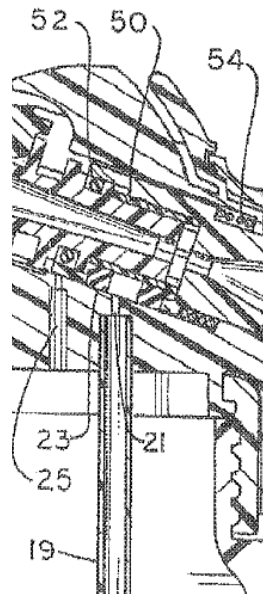


It is readily conceded that the invention of the ’398 and ’441 patents is complex. Nevertheless, it is not the province of the Court to “simplify” the invention. Rather, it is the province of the Court to attempt to discern the “invention,” and to construe the claims accordingly. *See, Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed.Cir.2001) (“The claims are directed to the invention that is described in the specification; they do not have meaning removed from the context from which they arose.”).

In reference to Fig. 6:



the cross-sectional view of Fig. 6 below appears in the region of element 50, which in an exploded view shows:



The specification explains that “[a] dip tube 19 is connected to body member 12 and extends into container 16 for siphoning chemical concentrate into the bore 13 of body member 12 by way of passage 21.” ’398 patent, 4:3-6.

Again, the ’398 specification explains that “[i]n one aspect, the body member includes [1] a product passage and [2] a vent passage. A seal is constructed and arranged to seal both the product passage and the vent passage.” ’398 patent, 2:14-17.

Namely, the language of claim 1 of the '398 patent is clear – the “product passage” is “connected between the container and the body.”

Likewise, the specification is clear that the “body member” includes [1] a product passage and [2] a vent passage, as noted above.

Returning to the claim, which calls for “a product passage connected between the container and the body to selectively provide chemical concentrate to the fluid passage,” it seems clear that that “a product passage connected between the container and the body” is referring to what is depicted in the drawings of the '398 patent as “passage 21.”

Does that “passage” alone provide the function of “to selectively provide chemical concentrate to the fluid passage” – obviously not. The claim simply calls for “a product passage connected between the container and the body.” The “passageway,” in context, recites the purpose of the “passageway, *i.e.*, “to selectively provide chemical concentrate to the fluid passage,” but does not ascribe that function to a simple “passageway.”

Certainly nothing in the claims or specification support POPS’ proposed construction.

3. Recommendation

The master recommends that the Court construe “a product passage connected between the container and the body to selectively provide chemical concentrate to the fluid passage” as a “passageway” that, per the claim language, is connected between the container and the body. That passageway may contribute to “selectively provide chemical concentrate to the fluid passage,” but is not alone responsible for performing that function.

G. Connected to the Inlet End ('441 patent)

The Parties’ proposed constructions are –

Claim Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Terms Addressed Only in the Briefs		
Connected to the Inlet End ('441 patent)	Plain meaning Or Joined or linked to the inlet end	Continuous passageway within the through bore from the inlet end to the outlet end

POPS urges that:

The parties disagree on how to construe the phrase “connected to the inlet end.” According to Diversey, “connected” means simply “joined or linked.” But a review of the Claim language and Specification shows that this connection is necessarily through “a continuous passageway,” as POPS proposes. As explained above, a bore is a cylindrical hole like a tube, which, here, runs through the body of the dispenser. The two opposite ends of the cylindrical tube—an “inlet end” on one end and an outlet on the other—are “connected.” The only logical way these two ends can be connected for the technology to work is through a continuous passageway. (See, e.g., ‘441 Patent at 7-9, Figs. 4-6 (showing the connection as a continuous passage).) The Specification describes no other embodiments or disclosure showing the connection as something other than a continuous passage.

POPS Op. Brief [Dkt. 69] at ECF 19.

1. As Used in the Context of the Claims

Claim 1 of the ’441 patent is representative:

1. A dispenser for dispensing different concentrations of chemical concentrate into a stream of water from a concentrate container at different flow rates comprising:

a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end and an outlet at the opposite end connected to the inlet end; and

an eductor at least partially disposed in the bore, the eductor being in fluid communication with a source of chemical concentrate and including a plurality of spaced apertures through which chemical concentrate flows, the eductor movable to different positions relative to the body member to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate to the outlet. (emphasis added)

Thus, the claim language does not specify whether, in the “body member limitation:

a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end and an outlet at the opposite end connected to the inlet end; and

the “connections” must be “direct” connections, or whether those connections could be “indirect” connections. In general terms, the term “connected” includes both direct and indirect connections. See e.g., *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1342 (Fed. Cir. 2013) (“The ordinary meaning of ‘connected to’ encompasses indirect linkages.”)

POPS has not persuasively shown that “connected to the inlet end” should be construed in the context of the claims:

a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end and an outlet at the opposite end connected to the inlet end;

as being limited to a “[c]ontinuous passageway within the through bore from the inlet end to the outlet end” as POPS proposes.

Indeed, this seems to go beyond the cardinal rule of not “reading limitations from the specification in to the claims.” Rather POPS urges a wholesale rewriting of the claim language, which courts do not do. *K-2 Corp.*, 191 F.3d at 1364 (“[c]ourts do not rewrite claims; instead, we give effect to the terms chosen by the patentee.”).

The language used in the claims “connected to the inlet end” is clear on its face, as well as in the context used in the claims.

Moreover, the Parties have not identified any particular issue of infringement and/or validity that turns on construction of “connected to the inlet end.”

2. Recommendation

The master recommends that the Court construe “connected to the inlet end” as including both direct and indirect connections.

H. To Provide Control of (‘441/’398)

The Parties’ proposed constructions are –

Claim Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Terms Addressed Only in the Briefs		
To Provide Control of (‘441/’398)	Plain meaning Or To adjust, regulate, direct or guide	To control entirely by a single eductor

1. As Used in the Context of the Claims

Claim 1 of the '441 patent calls for:

1. A dispenser for dispensing different concentrations of chemical concentrate into a stream of water from a concentrate container at different flow rates comprising:

a body member having a through bore with an inlet end adapted to be connected to a source of pressurized water at one end and an outlet at the opposite end connected to the inlet end; and

an eductor at least partially disposed in the bore, the eductor being in fluid communication with a source of chemical concentrate and including a plurality of spaced apertures through which chemical concentrate flows, the eductor movable to different positions relative to the body member to provide control of both different concentrations of chemical concentrate and different flow rates of water and chemical concentrate to the outlet. (emphasis added)

Claim 1 of the '398 patent calls for:

1. A dispenser comprising:

a body including a bore and an inlet fluidly coupled to the bore and adapted to be connected to a source of pressurized water;

an eductor at least partially disposed in the bore and defining a fluid passage, the eductor slidable relative to the body to provide control of different flow rates of a mixture of water and chemical concentrate from the fluid passage to an outlet;

a product passage connected between the container and the body to selectively provide chemical concentrate to the fluid passage;

a nozzle fluidly coupled to the eductor; and

a spout fluidly coupled to the nozzle and configured to discharge the water and chemical concentrate to a reservoir, the spout positioned below the nozzle and extending generally downward from the nozzle such that the mixture of water and chemical concentrate is configured to discharge in the generally downward direction. (emphasis added)

POPS does not address “to provide control of” in its opening brief. POPS Op. Brief [Dkt. 69]. POPS also does not address “to provide control of” in its responsive brief. POPS Resp. Brief [Dkt. 73].

That, of course, does not necessarily satisfy the Court’s obligation under *O2 Micro* to resolve truly disputed terms/phrases.

Accordingly, POPS has waived any future challenge to the construction of “to provide control of.” Here, Diversey proposes that “to provide control of” should be construed as “to adjust, regulate, direct or guide.” That comports with the claims and specification.

2. Recommendation

The master recommends that the Court construe “to provide control of” as “to adjust, regulate, direct or guide.”

I. Product Passageway ('398)

The Parties’ proposed constructions are –

Claim Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Terms Addressed Only in the Briefs		
Product Passageway ('398)	Plain meaning	A single passage in the body

1. As Used in the Context of the Claims

Claim 1 of the '398 patent calls for:

1. A dispenser comprising:

a body including a bore and an inlet fluidly coupled to the bore and adapted to be connected to a source of pressurized water;

an eductor at least partially disposed in the bore and defining a fluid passage, the eductor slidable relative to the body to provide control of different flow rates of a mixture of water and chemical concentrate from the fluid passage to an outlet;

a product passage connected between the container and the body to selectively provide chemical concentrate to the fluid passage;

a nozzle fluidly coupled to the eductor; and

a spout fluidly coupled to the nozzle and configured to discharge the water and chemical concentrate to a reservoir, the spout positioned below the nozzle and extending generally downward from the nozzle such that the mixture of water and chemical concentrate is configured to discharge in the generally downward direction.

Although “product passage” was included as a separate topic in Diversey’s Opening Brief [Dkt. 70], that term/phrase seems to have been subsequently included by the Parties with the discussion of “to selectively provide chemical concentrate to the fluid passage” in the context of the

broader phrase “a product passage connected between the container and the body to selectively provide chemical concentrate to the fluid passage.”

2. Recommendation

Accordingly, the foregoing discussion of “a product passage connected between the container and the body to selectively provide chemical concentrate to the fluid passage” suffices to address this issue.

J. Nozzle ('398)

The Parties' proposed constructions are –

Claim Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
Terms Addressed Only in the Briefs		
Nozzle ('398)	Plain meaning Or A projecting part with an opening directing fluid	A cylindrical or round spout at the end of a pipe, hose, or tube used to control a jet of gas or liquid

1. As Used in the Context of the Claims

Claim 1 of the '398 patent calls for:

1. A dispenser comprising:

a body including a bore and an inlet fluidly coupled to the bore and adapted to be connected to a source of pressurized water;

an eductor at least partially disposed in the bore and defining a fluid passage, the eductor slidable relative to the body to provide control of different flow rates of a mixture of water and chemical concentrate from the fluid passage to an outlet;

a product passage connected between the container and the body to selectively provide chemical concentrate to the fluid passage;

a nozzle fluidly coupled to the eductor; and

a spout fluidly coupled to the nozzle and configured to discharge the water and chemical concentrate to a reservoir, the spout positioned below the nozzle and extending generally downward from the nozzle such that the mixture of water and chemical concentrate is configured to discharge in the generally downward direction.

A “nozzle” is plainly a term widely understood among both the technical and non-technical communities. There is no allegation whatsoever that “nozzle” was used in the patents-in-suit in an idiosyncratic sense, or otherwise than in accordance with its “common” meaning.

2. Recommendation

The term “nozzle” is a widely known and understood term. There is no indication whatsoever that the patentees in the ’441 and/or r398 patents intended “nozzle” to have a meaning other than its actual common meaning.

VII.

Motion to Correct Transcript

Diversey has moved to “Correct and Supplement the Claim Construction Record” [Dkt. 98]. In particular, during the *Markman* hearing, there was a discussion regarding POPS Slide No. 9. The motion seeks to clarify and supplement the record.

POPS opposes Diversey’s motion (1) because “the subject matter of Diversey’s motion concerns the structure of the accused product in this case, which is a fact to be determined at a later stage of this case. The illustration at issue was presented only to give context as to why certain claim terms are disputed. Thus, the accused product is not relevant to a claim construction determination,” and (2) “[t]o the extent Diversey is insinuating that POPS intentionally misled the Special Master or the Court, POPS categorically denies it.” POPS’ Response to Motion to Correct [Dkt. 99] at ECF 1.

Diversey’s motion is GRANTED. POPS is correct that this primarily addresses an issue of infringement rather than claim construction. Nevertheless, if the record is left “as is” there is a potential for misunderstanding by future record readers. However, there is no implication whatsoever that POPS intentionally or otherwise misled the master or the Court.

VIII.

Recommendation

Based on the foregoing, the master recommends that the Court construe the disputed terms and phrases in accordance with the foregoing recommendations.

IX.

Conclusion

This is the Master's Final Report and Recommendation on the issues referred to the master by the Court for resolution.

The Court's Order of March 3, 2021 [Dkt. 90], provides, *inter alia*, that:

(8) Any party seeking review of any recommended finding of the Special Master shall comply with the procedures specified in Fed. R. Civ. P. 53(f) *except* that the Court herein modifies the time limits for parties to object or move to adopt or modify a master's order, report, or recommendation under Fed. R. Civ. P. 53(f)(2) such that a party may object or move in response to a master's recommendation *no later than 14 days* after a copy is served, rather than the 21 days provided under Fed. R. Civ. P. 53(f)(2).

Thus, the Court's order in this case shortens the time period of Rule 53(f)(2) which provides that "[a] party may file objections to—or a motion to adopt or modify—the master's order, report, or recommendations no later than 21 days after a copy is served, unless the court sets a different time."

The COVID19 pandemic has resulted in courts issuing a variety of orders, both general and specific. Some of those orders "may" (or "may not") affect the time period for filing objections in this case.

The parties are responsible for determining whether a different time limit is applicable, either under the Court's orders in this case, or more general orders or local court rules or chamber rules.

SIGNED this 14th day of June, 2021, in San Antonio, Texas.

/s/ Gale R. Peterson

Gale R. Peterson, Special Master

CERTIFICATE OF SERVICE

A copy of the foregoing was electronically filed with the Court through the ECF system this 14th day of June 2021. Notice of this filing will be sent by operation of the Court's electronic filing system. Parties may access this filing through the Court's system.

/s/ Gale R. Peterson

Gale R. Peterson, Special Master