

United States District Court,
N.D. Ohio, Eastern Division.

PARKER-HANNIFIN CORP., et al,
Plaintiffs.

v.

BALDWIN FILTERS, INC., et al,
Defendants.

July 3, 2008.

Francis Digiovanni, Keith A. Walter, Jr., M. Curt Lambert, Connolly, Bove, Lodge & Hutz, Wilmington, DE, Benjamin C. Sasse, Harry D. Cornett, Jr., Tucker, Ellis & West, Cleveland, OH, Laura J. Gentilcore, Ray L. Weber, Renner, Kenner, Greive, Bobak, Taylor & Weber, Akron, OH, for Plaintiffs.

Ann Marie Wahls, Jared E. Hedman, Mark A. Pals, Scott S. Evans, Thomas Osier, Kirkland & Ellis, Chicago, IL, Hugh E. McKay, John A. Mugnano, Tracey L. Turnbull, Porter, Wright, Morris & Arthur, Cleveland, OH, for Defendants.

Memorandum of Opinion and Order

PATRICIA A. GAUGHAN, **District Judge.**

INTRODUCTION

This matter is before the Court to construe the disputed terms of Claims 20, 24, 25 and 26 of U.S. Patent No. 5,643,446 ("the '446 Patent") and Claims 1, 2, 3, 4 and 9 of U.S. Patent No. 6,328,883 ("the '883 Patent"). The Court's construction is set forth below.

BACKGROUND

Plaintiffs Parker Intangibles LLC, as the owner of the patents-in-suit, and Parker-Hannifin Corporation, as the exclusive licensee to the patents-in-suit (collectively, "Parker" or "plaintiffs"), bring this suit against defendants Baldwin Filters, Inc. ("Baldwin") and Clarcor Inc. ("Clarcor") (collectively, "defendants") for infringement of certain claims of the '446 Patent, the '883 Patent and U.S. Patent No. D441,422 ("the D422 Patent"). FN1 The patents are directed to fuel filters for vehicle engines. Baldwin makes and sells fuel filters. FN2

FN1. The D422 Patent is a "design patent." The parties state that any decision whether or not this patent need be construed should be stayed pending the Federal Circuit's rehearing *en banc* of its decision in *Egyptian Goddess, Inc. v. Swisa, Inc.*, 498 F.3d 1354 (Fed.Cir. Aug.29, 2007). One of the issues to be decided *en banc* is: "Should claim construction apply to design patents, and, if so, what role should that construction play in the infringement analysis?"

FN2. Baldwin is a division of Clarcor. Clarcor states that it does not make or sell fuel filters.

Generally, a vehicle's engine includes a filter assembly. The assembly is comprised of a removable filter (sometimes called a filter element or a separator) and a filter head. The filter head is "a permanent part of a vehicle's fuel system." The removable filter attaches to the filter head. Some filters are designed to attach by being "spun on" to the filter head.

The filters of the asserted claims include, at a minimum, a housing, filtration media and an end cap. The filters of the '446 Patent also include a "longitudinally extending actuating projection." This projection actuates, *i.e.*, engages, a spring-actuated valve located in the "nipple portion" of the filter head. The valve prevents fuel from dripping onto the engine when a dirty filter is removed. It works as follows: When a dirty filter is removed, the projection is removed along with it. As a result, the projection is no longer engaging the valve and the valve closes. When the valve closes, no fuel can leak onto the engine. When a new filter is attached to the filter head, the valve is opened by the actuating projection and fuel can flow through the nipple portion of the filter head and into the filter. The heart of this dispute appears to be centered on the features of the "end cap" and, specifically, whether the actuating projection is necessarily part of or attached to the end cap.

The '883 Patent issued on December 11, 2001. It is entitled "Fuel Filter Assembly with Priming Pump" and contains 29 claims. Russell D. Jensen is the sole inventor. Plaintiffs allege that Baldwin's BF7827 filter (the "Accused Filter") infringes Claims 1, 2, 3, 4 and 9 of the '883 Patent. Claim 1 is an independent claim. Claims 2, 4 and 9 depend from claim 1. Claim 3 depends from claim 2.

Claims 1, 2, 3, 4 and 9 of the '883 Patent are set forth below:

I. A filter element, comprising:

a ring-shaped filter media circumscribing a central axis and having first and second ends,

a housing receiving said filter media ring, said housing including a closed end and an open end, the first end of the filter media ring being located toward the open end of the housing, and the second end of the filter media ring being located toward the closed end of the housing,

an end cap attached to the first end of the filter media ring, the end cap including an annular body portion bonded to the filter media ring, and an annular flange unitary with the annular body portion and extending axially outward away from the end cap, and located toward the periphery of the end cap, said annular flange including a threaded portion to enable the filter element to be removeably connected to a corresponding threaded portion of a filter head, and generally radially-extending openings in the annular flange between the threaded portion and the annular body portion to enable fluid flow through the annular flange, and a central portion spanning the annular body portion and having flow openings to enable flow through the central portion, said central portion supporting a central projection, said central projection having a base end supported interiorly of the media ring and located away from said end cap and extending axially from said base end to a distal end located toward the end cap.

2. The filter element as in claim 1, wherein the open end of the housing is secured to the annular flange.
3. The filter element as in claim 2, wherein the open end of the housing is mechanically formed around the flange.
4. The filter element as in claim 1, and further including an annular seal carried by and inwardly bounding the annular body portion of the end cap.
9. The filter element as in claim 1, wherein the generally radially extending openings in the annular flange comprise circular passages.

The '446 Patent, which issued on July 1, 1997, is entitled "Fuel Filter and Priming Pump." It contains 30 claims. The inventors are Michael D. Clausen, Russell D. Jensen and Walter H. Stone. Plaintiffs allege that the Accused Filter infringes Claims 20, 24, 25 and 26 of the '446 Patent. Claims 20, 24 and 25 are independent. Claim 26 depends from Claim 25.

Claims 20, 24, 25 and 26 of the '446 Patent are set forth below:

20. A filter for mounting to a filter head including a nipple portion having a valve element therein, said filter comprising:

a generally cylindrical housing having a central axis, a first open end, and a second end;

an annular ring of filter media in said housing surrounding said central axis, said filter media having first and second ends spaced along said central axis;

a first end cap attached to said media at said first end adjacent the first end of said housing;

a second end cap attached at an annular portion thereof to said media at said second end and positioned adjacent to the second end of said housing;

wherein said ring of filter media and said first and second end caps separate a central chamber located within said ring of filter media and first and second end caps from a peripheral chamber surrounding said ring of filter media;

said first end cap including an annular portion surrounding and defining a central opening; and

said first end cap including a longitudinally extending actuating projection extending axially in said central chamber, said longitudinally extending actuating projection having a base and a free end, said base being positioned closer to said second end cap than said free end and said free end in said central chamber positioned adjacent the central opening of said first end cap; and

a first annular resilient seal in circumferentially surrounding relation and radially outwardly spaced from said free end of said actuating projection, said seal being adjacent said central opening for engaging the nipple portion when the nipple portion extends through said central opening for engagement of the actuating projection with the valve element in the nipple portion;

whereby the free end of said actuating projection is configured and arranged to open the valve element within the nipple portion when the nipple portion is engaged with the first seal; and

wherein said base is connected to said annular portion of said first end cap by connecting structure extending through said central chamber and between said base and the annular portion of said one of said first and second end caps, said connecting structure includes a longitudinally extending annular end cap wall supported on said annular portion of said one of said first and second end caps, said annular end cap wall in said central chamber radially disposed inwardly from said media, and wherein said base of said actuating projection is supported on said annular end cap wall; and

wherein said connecting structure includes a central portion spanning said annular end cap wall, said longitudinally extending projection supported on said central portion and whereby passage of a nipple portion into said central chamber beyond said central portion is prevented; and

wherein said central portion comprises a generally disk shaped portion having said actuating projection extending therefrom, and wherein said disk shaped portion includes a plurality of fluid passages angularly spaced about said actuating projection.

24. A filter for mounting to a filter head including a nipple portion having a valve element therein, said filter comprising:

a generally cylindrical housing having a central axis, a first open end and a second end;

an annular ring of filter media in said housing surrounding said central axis, said filter media having first and second ends spaced along said central axis and separating a central chamber bounded by said media from a peripheral chamber surrounding said media;

a first end cap proximate said first open end and being attached to said media at the first end thereof and including an annular portion surrounding and defining a central opening;

a longitudinally extending annular end cap wall supported on said first end cap, said annular end cap wall disposed radially inwardly from said media;

a central portion spanning said annular end cap wall;

a longitudinally extending actuating projection having a base connected to said central portion and a free end extending from said central portion towards said first end of said housing, said actuating projection being stationary relative to said media, and at least one fluid passage through said central portion; and

an annular seal adjacent said first end of said housing and circumferentially bounding said central opening, said free end of said actuating projection being smaller in transverse dimension than said central opening.

25. A filter for mounting to a filter head including a nipple portion having a valve element therein, said filter comprising:

a generally cylindrical housing having a central axis, a first open end and a second end;

an annular ring of filter media in said housing surrounding said central axis, said filter media having first and second ends spaced along said central axis and separating a central chamber bounded by said media from a peripheral chamber surrounding said media;

a first end cap proximate said first open end and being attached to said media at the first end thereof, said first end cap including a longitudinally extending annular end cap wall, said annular end cap wall disposed radially inward from said media; a central portion spanning said annular end cap wall; and a longitudinally extending actuating projection extending longitudinally from said central portion and stationary relative to said annular end cap wall, and wherein said first end cap includes at least one fluid passage therethrough, said fluid passage positioned in said central chamber; and

an annular seal adjacent said first end of said housing and circumferentially bounding a central opening in said first end cap, said actuating projection having a base and a free end, said base positioned closer to said second end cap than said free end, said free end of said actuating projection being smaller in transverse dimension than said central opening.

26. A filter according to claim 25, wherein said annular seal is in circumferentially surrounding relation and radially outwardly spaced from said free end of said actuating projection.

The parties have submitted a joint claim construction chart indicating which claim terms are disputed and setting forth each parties' proposed construction and the evidence in support of that construction. The parties have also submitted opening and responsive claim construction briefs. Accordingly, the matter of claim construction is now ripe for decision.

STANDARD OF REVIEW

"[T]he interpretation and construction of patent claims, which define the scope of the patentee's rights under the patent, is a matter of law exclusively for the court." *Markman v. Westview Instruments*, 52 F.3d 967, 970-71 (Fed.Cir.1995) (en banc), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). "To ascertain the meaning of claims, [the court considers] three sources: The claims, the specification, and the prosecution history." *Markman*, 52 F.3d at 979. The words of a claim are generally given their ordinary and customary meaning. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed.Cir.2005). The ordinary and customary meaning is to be determined from the perspective of one of ordinary skill in the art at the time of the invention. *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.*

Accordingly, the court first looks to the claim itself, read in view of the specification. *Id.* at 1315 (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."). However, while the court may look to the written description to define a term already in a claim limitation, the court may not read a limitation from the written description into a claim. *Id.* at 1323.

As stated above, the prosecution history should also be considered by the court when conducting claim construction. *Phillips*, 415 F.3d at 1317. 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.*;

see also Chimie v. PPG Indus., Inc., 402 F.3d 1371, 1384 (Fed.Cir.2005) ("The purpose of consulting the prosecution history in construing a claim is to exclude any interpretation that was disclaimed during prosecution."). A statement made during prosecution will constitute a surrender of claim scope if the disclaimer is "clear and unmistakable" and "unambiguous." Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1325-26 (Fed.Cir.2003); Sandisk Corp. v. Memorex Prods., 415 F.3d 1278, 1287 (Fed.Cir.2005). Claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers. Chimie, 402 F.3d at 1384. Moreover, the prosecution history of a parent application applies with equal force to a later patent that contains the same claim limitation. Elkay Mfg. Co. v. Ebco Mfg. Co., 192 F.3d 973, 980 (Fed.Cir.1999); *see also* Microsoft Corp. v. Multi-Tech Sys., Inc., 357 F.3d 1340, 1349 (Fed.Cir.2004) ("the prosecution history of one patent is relevant to an understanding of the scope of a common term in a second patent stemming from the same parent application"). "The relevant inquiry is whether a competitor would reasonably believe that the applicant had surrendered the relevant subject matter." Cybor Corp. v. Fas Techs., Inc., 138 F.3d 1448, 1457 (Fed.Cir.1998).

All other evidence is considered extrinsic and may be relied upon by the court in its discretion. Markman, 52 F.3d at 980; Phillips, 415 F.3d at 1317. However, extrinsic evidence is less reliable than intrinsic evidence. Phillips, 415 F.3d at 1318. Thus, the court should restrict its reliance on extrinsic evidence to educating itself regarding the field of invention or to determining what a person of ordinary skill in the art would have understood the claim terms to mean. *Id.* at 1319; *see also* Markman, 52 F.3d at 986 ("It is not ambiguity in the document that creates the need for extrinsic evidence but rather unfamiliarity of the court with the terminology of the art to which the patent is addressed."). Extrinsic evidence may not be used for the purpose of varying or contradicting the terms of the claims. Markman, 52 F.3d at 981.

As a result, excessive reliance should not be placed on dictionaries. Phillips, 415 F.3d at 1321. "The main problem with elevating the dictionary to such prominence is that it focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent.... [H]eavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification." *Id.*

DISCUSSION

The Court has been asked to construe sixteen claim terms in nine claims. FN3 The chart below lists each of the disputed claim terms as well as the claims in which each disputed term appears. This information is taken from the parties' joint claim construction chart.

FN3. The parties agree that the term "unitary with", found in Claim 1 of the '883 Patent, means "formed in one piece with" and requires no construction by the Court.

	Disputed Claim Term	Claim Numbers
1.	"said one of said first and second end caps"	'446 Patent-Claim 20
2.	"being adjacent said central opening"	'446 Patent-Claim 20
3.	"connecting structure"	'446 Patent-Claim 20
4.	"end cap"	'446 Patent-Claims 20, 24 and 25

		'883 Patent-Claims 1 and 4
5.	"attached to said media" / "attached at an annular portion thereof to said media"	'446 Patent-Claims 20, 24 and 25
		'883 Patent-Claim 1
6.	"annular portion surrounding and defining a central opening" / "said annular portion" / "the annular portion"	'446 Patent-Claims 20 and 24
7.	"longitudinally extending actuating projection" / "said actuating projection" / "the actuating projection"	'446 Patent-Claims 20, 24, 25 and 26
8.	"said actuating projection being stationary relative to said media"	'446 Patent-Claim 24
9.	"in circumferentially surrounding relation"	'446 Patent-Claims 20 and 26
10.	"circumferentially bounding"	'446 Patent-Claims 24 and 25
11.	"nipple portion"	'446 Patent-Claims 20, 24 and 25
12.	"longitudinally extending annular end cap wall" / "said annular end cap wall"	'446 Patent-Claims 20, 24 and 25
13.	"housing"	'883 Patent-Claims 1, 2 and 3 [FN4]

FN4. The term "housing" also appears in Claims 20, 24 and 25 of the ' 446 Patent. The parties do not address construction of the term in the context of the '446 Patent.

14.	"closed end"	'883 Patent-Claim 1
15.	"open end"	'883 Patent-Claims 1, 2 and 3 [FN5]

FN5. This term also appears in Claims 20, 24 and 25 of the '446 Patent. The parties do not address construction of the term in the context of the '446 Patent.

16.	"annular body portion bonded to the filter media ring"	'883 Patent-Claim 1 [FN6]
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FN6. The term "annular body portion" also appears in Claim 4 of the ' 883 Patent.

1. "Said one of said first and second end caps"

Plaintiffs' Proposed Construction: "said first end cap"

Defendants' Proposed Construction: Defendants contend that Claim 20 is indefinite because this claim term lacks antecedent basis.FN7

FN7. Determining whether or not a claim is indefinite is "inextricably intertwined with claim construction" and "requires a construction of the claims according to the familiar canons of claim construction." *Energizer Holdings, Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 1368-69 (Fed.Cir.2006) (internal citations omitted). This determination is a matter of law for the Court. *See Allen Eng'g Corp. v. Bartell Indus.*, 299 F.3d 1336, 1344 (Fed.Cir.2002).

Court's Construction: Plaintiffs concede this claim term lacks antecedent basis and has asked the United States Patent and Trademark Office ("PTO") to issue a Certificate of Correction changing this term to "said first end cap." FN8 The authority for such a filing is found in 35 U.S.C. s. 255, which provides:

FN8. The Court notes that the request for the Certificate of Correction is directed to unasserted claim 21. This appears to be a typographical error.

Whenever a mistake of a clerical or typographical nature, or of minor character, which was not the fault of the Patent and Trademark Office, appears in a patent and a showing has been made that such mistake occurred in good faith, the Director may, upon payment of the required fee, issue a certificate of correction, *if the correction does not involve such changes in the patent as would constitute new matter or would require re-examination*. Such patent, together with the certificate, shall have the same effect and operation in law on the trial of actions for causes thereafter arising as if the same had been originally issued in such corrected form.

(emphasis added)

The Patent Act requires that a "specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. s. 112, second paragraph. This requires that the applicant both set forth what he regards as his invention and that he does so with "sufficient particularity and distinctness, *i.e.*, the claim must be sufficiently 'definite.'" *Allen Eng'g Corp. v. Bartell Indus.*, 299 F.3d 1336, 1348 (Fed.Cir.2002). For a claim to be sufficiently definite, each claim term must have what is referred to as an "antecedent basis." The United States Patent and Trademark Office ("PTO") describes the need for antecedent basis as follows:

A claim is indefinite when it contains words or phrases whose meaning is unclear. The lack of clarity could arise where a claim refers to "said lever" or "the lever," where the claim contains no earlier recitation or limitation of a lever *and where it would be unclear as to what element the limitation was making reference*. Similarly, if two different levers are recited earlier in the claim, the recitation of "said lever" in the same or subsequent claim would be unclear *where it is uncertain* which of the two levers was intended. A claim which refers to "said aluminum lever," but recites only "a lever" earlier in the claim, is indefinite because it is uncertain as to the lever to which reference is made. Obviously, however, the failure to provide explicit antecedent basis for terms does not always render a claim indefinite. *If the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite*.

Manual of Patent Examining Procedure ("MPEP"), s. 2173.05(e) (citing *Energizer Holdings, Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366 (Fed.Cir.2006); *Ex parte Porter*, 25 USPQ2d 1144, 1145 (Bd. Pat.App. & Inter.1992)) (emphases added).FN9

FN9. The MPEP is the document used by examiners at the PTO to guide them through the examination

process and governs the objections to and granting of patent applications.

Section 112, second paragraph "facilitates examination during the patent application stage, and upon grant serves to notify the public of what is patented. The reviewing tribunal must determine whether a person experienced in the field of the invention would understand the scope of the claim when read in light of the specification." *Energizer*, 435 F.3d at 1369.

A certificate of correction is only effective for causes of action arising after it was issued. For causes of action that arise before the correction becomes effective, the patent must be considered without the benefit of the certificate of correction. *Southwest Software, Inc. v. Harlequin Inc.*, 226 F.3d 1280, 1294-95 (Fed.Cir.2000). If no certificate of correction has been issued, "a district court can [act to correct an error in a patent by interpretation of the patent] only if (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims." *Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1354 (Fed.Cir.2003); *see also* *Group One, Ltd. v. Hallmark Cards, Inc.*, 407 F.3d 1297, 1303 (Fed.Cir.2005) (relying on *Novo* and adding that "the district court can correct an error only if the error is evident from the face of the patent").

The disputed claim term appears in Claim 20 of the '446 Patent. Claim 20 generally claims a filter having a housing, a ring of filter media, a first end cap and a second end cap. Importantly, the *first end cap* has an annular portion and also a longitudinally extending actuating projection. The actuating projection has a base. The base is connected to the annular portion of the first end cap by connecting structure "between said base and the annular portion of said one of said first and second end caps." The connecting structure includes a longitudinally extending annular end cap wall supported on "said annular portion of said one of said first and second end caps." So, in Claim 20, there is no antecedent basis for *said* annular portion of *said* second end cap. In the specification, the inventors disclosed two different embodiments—one with an actuating projection on the first end cap (Figure 17) and one with the projection on the second end cap (Figure 24).

Plaintiffs argue that during prosecution, "an agreement was reached between the examiner and the inventors' attorney, during an interview, that all instances of the phrase 'said one of said first and second end caps' in claim 20 were to be amended to read 'said first end cap.' "

The question for this Court is whether it may look to the prosecution history to resolve whether or not one of ordinary skill in the art would understand Claim 20 as being directed to only an annular portion of the first end cap. Defendants contend that the Court may not look to the prosecution history but, rather, must look only at the specification. In *Novo*, the Federal Circuit held that an error may only be corrected if "the correction is not subject to reasonable debate based on consideration of the claim language and the specification." The prosecution history is consulted only if this first test is met and only to ascertain whether or not the history suggests a different interpretation. *Novo*, 350 F.3d at 1354. Later in the opinion, the *Novo* court further explained that the PTO has broader authority to make corrections under 35 U.S.C. s. 255 than does a district court. Corrections by the PTO are permissible "so long as 'it is clearly evident from the specification, drawings, and prosecution history how the error should appropriately be corrected.'" *Id.* at 1356-57 (emphasis added). However, when a court is considering whether or not it may make a correction, the error must be "evident from the face of the patent itself." Otherwise, "it is important that the PTO bring its expertise to bear and consider whether such a correction is appropriate."

Based upon the controlling law of the Federal Circuit, this Court finds that Claim 20 is indefinite under 35 U.S.C. s. 112, second paragraph for lack of antecedent basis for the claim term "said one of said first and second end caps."

2. "*Being adjacent said central opening*"

This claim appears only in Claim 20. Because the Court has found that Claim 20 is indefinite, this term will not be construed.

3. "*Connecting Structure*"

This claim appears only in Claim 20. Because the Court has found that Claim 20 is indefinite, this term will not be construed.

4. "*End Cap*"

The term "end cap" appears in the asserted claims of both the '446 and the ' 883 Patents. The parties agree that the term should be construed to have the same meaning in both patents.

Plaintiffs' Proposed Construction: "the component or components that cap the filter at either end"

Defendants' Proposed Construction: "structure permanently attached to one end of the filtration media"
FN10

FN10. Defendants argue that the end cap must be permanently attached to the end cap. Later in this Opinion, the Court considers this question in the context of the claim term "attached to said media." Thus, the parties' arguments concerning this dispute are addressed below.

Court's Construction: To construe this term, the Court must determine whether or not the end cap must be construed as being limited to a single component. The end cap of the asserted claims has several features of its own including, for example, an annular body portion and an annular flange.FN11 Defendants argue that the claims of the ' 883 Patent require the body portion to be unitary with the annular flange, thus indicating the various parts of the end cap are all part of a single structure. Defendants also argue that the prosecution history compels their proposed construction. As explained above, the inventors of the ' 446 Patent informed the examiner that the actuating projection is located on the end cap. That end cap is attached to the filter media. As a result, the presence of the projection ensures the presence of the media. Defendants rely on this to argue that the actuating projection must also be unitary with the end cap.FN12

FN11. Contrary to defendants' assertion, the claim construction in an unrelated litigation over unrelated patents is inapposite. In *Parker v. Wix*, pending in the Eastern District of California, Parker urged the court to construe "end cap" to mean "component or components ..." The court found no support in the claim language for this construction. Notably, some but not all of the claims asserted in the California litigation claimed an "end cap assembly" comprised of multiple elements.

FN12. Interestingly, plaintiffs' treatment of the end cap in their briefing lends support to defendants' proposed construction. On page 3 of their responsive claim construction brief, plaintiffs provide a picture of

a fuel filter taken from Figure 8 of the '883 Patent. For the Court's benefit, plaintiffs have highlighted the "end cap" in red. The area highlighted in red includes the annular wall, annular body portion, annular flange and actuating projection among other things. So, it seems that even plaintiffs and their attorneys consider each of these items to merely be the end cap.

Plaintiffs argue that nothing in the intrinsic evidence limits the end cap to a single component.FN13 Plaintiffs also point to a related patent, U.S. Patent No. 6,171,491 ("the '491 Patent"). In the '491 Patent, the inventors used different "cross-hatching" marks in Figure 33 to designate the first annular end cap portion from the second annular end cap portion. Plaintiffs assert this evidence confirms that their proposed construction should be adopted. To the contrary, this evidence does not appear to be in plaintiffs' favor when the figures of the asserted patents are looked at more closely. In the '883 Patent, the same cross-hatching is used across the entire end cap, including the projection, body portion, etc. '883 Patent, Fig. 8. While the evidence is not compelling on either side, the Court finds that one of ordinary skill in the art would understand the end cap of the asserted claims to consist of a unitary structure, albeit having various features comprising that structure.

FN13. Defendants worry that if plaintiffs' proposed construction is adopted, plaintiffs will argue later that the tap plate is merely one component of the end cap. The Court finds this concern to be unfounded. The tap plate is clearly a distinct structure as disclosed and claimed in the '446 Patent (the '883 Patent does not disclose a separate tap plate). Plaintiffs admit as much at page 4 of their responsive brief. Moreover, plaintiffs, in connection with other disputed claim terms, argue vigorously that well-settled principles of claim construction preclude two distinct terms from being construed the same. The inventors' testimony supports this conclusion as well.

For the foregoing reasons, the Court construes "end cap" to mean "structure that caps the filter." FN14·FN15

FN14. Plaintiffs rely on dictionary definitions as evidence of the plain and ordinary meaning of almost every disputed claim term. Unless otherwise stated in this Opinion, the Court has determined that reference to such outside evidence is unnecessary for construction of the disputed terms.

FN15. The Court does not include plaintiffs' proposed language "at either end." Some of the asserted claims include a "first end cap" and a "second end cap." To say that the "first end cap" caps the filter at either end will be inaccurate and confusing.

5. "*Attached to said media*" / "*Attached at an annular portion thereof to said media*"

Plaintiffs' Proposed Construction: "annular means configured or arranged as a ring" Plaintiffs contend that no further construction is necessary.

Defendants' Proposed Construction: "fixed directly to said media" / "fixed directly at a disk-shaped portion thereof to said media"

Court's Construction: This claim term refines the term "end cap" construed above. Each of the asserted

claims requires that the end cap be "attached" to the filter media. Defendants urge that the end cap be construed as being "fixed directly" to the filter media without any intervening structure between the two. In addition, defendants argue that the end cap be "permanently attached" to the media.FN16 Defendants argue that this construction is necessary to distinguish the end cap from a "tap plate, which can be removed." Defendants' interest in this construction apparently stems from the fact that their actuating projection is on the tap plate of their Accused Filter rather than the end cap.FN17 Therefore, defendants seek to ensure that the definition of the end cap is properly limited lest plaintiffs attempt to convince a jury at trial that defendants' removable tap plate with its actuating projection is equivalent to what plaintiffs have claimed as an end cap.FN18 It seems that in typical fuel filters (according to defendants) the tap plate is removable but the end cap is not. However, in the context of the '446 and '883 Patents (and it is this context that concerns the Court), the Court finds that the end cap need not be permanently attached to the filter media.

FN16. As stated above, in connection with the term "end cap", defendants argue it must be permanently attached to the filter media. Those arguments are addressed here.

FN17. Plaintiffs state that the tap plate, in the context of the '446 Patent, is "a female threaded portion onto which the threaded nipple portion of the filter head screws, or spins ... for attaching the filter to the filter head."

FN18. The meaning of the term "actuating projection", including its location on the claimed filters, is also disputed and is discussed below.

The claims themselves define the scope of the patentee's right to exclude. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed.Cir.2005). The words of the claim are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art. *Id.* at 1312-13. The person of ordinary skill in the art is deemed to have read the words of the claims in light of his understanding of how those words are used in the field of the invention and in light of how the inventor used those words in the patent specification. *Id.* at 1313. In deciding whether or not broad claim language is to be construed in a more limiting way given the disclosure of the specification, the Court must always keep in mind that it is to determine how one of ordinary skill in the art would understand the claim term. *Id.* at 1323 (stating also that "persons of ordinary skill in the art rarely would confine their definitions of terms to the exact representations depicted in the embodiments").

Applying these principles, the Court notes first that none of the asserted claims indicate that the end cap must be permanently attached to one end of the filtration media. Instead, the claims merely require that the end cap be "attached" to that media.FN19 Further, Claim 1 of the '883 Patent requires that an annular body portion of the end cap be "bonded" to the filtration media while the other claims do not include this "bonded" limitation. The specification of the '883 Patent is also instructive. There, the term "bonded" is used to describe a preferred embodiment rather than the invention as a whole. Plaintiffs argue that to require the end cap to be permanently attached to the filtration media would improperly limit all claims to what is described by the inventors as merely a preferred embodiment. *E.g.*, *Electro Medical Sys., S.A. v. Cooper Life Sciences*, 34 F.3d 1048, 1054 (Fed.Cir.1994) ("particular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments"); *see also Phillips*, 415 F.3d at 1315 ("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").

FN19. While not directly on point, plaintiffs point out that in the asserted claims, the end cap is an element of the claimed filter, not the filter media. The specification of the '883 Patent reinforces this understanding. The specification explains that the filter's housing forms around the end cap securing the filter media in a fluid-tight manner to the housing. Thus, the end cap spans the entire end of the filter, not just the media that is inside.

However, defendants point out that during prosecution of the '446 Patent, plaintiffs represented that an "advantage of the invention is that because the actuating projection is surrounded by the filter media and is supported on an end cap which is attached to the filter media, the presence of the projection assures the presence of the media." (emphases added) FN20 While this statement makes clear that the end cap must be attached to the filter media in order for an actuating projection on the end cap to "assure the presence of the media", it does not go far enough to require that the end cap be *permanently* attached. The Court finds that this single statement in the prosecution history is not the sort of "clear and unmistakable" or "unambiguous" surrender of claim scope contemplated by controlling Federal Circuit law. *See, e.g., Omega Eng'g*, 334 F.3d at 1325-26. The Court is not convinced that one of ordinary skill in the art "would reasonably believe that the applicant[s] surrendered the relevant subject matter." *Cybor Corp.*, 138 F.3d at 1457.

FN20. While this statement was made in response to a rejection of then-pending claims 1-4 and 19, the statement appears to be directed to the invention as a whole. In their briefing, plaintiffs do not argue otherwise. Further, neither party indicates if then-pending claims 1-4 and 19 issued and, if so, which claims in the issued patent correspond. The Court has been unable to ascertain this information for itself as the full prosecution history was not provided and it is not available for this patent on the PTO's website.

The extrinsic evidence relied upon by defendants does not compel a different conclusion. Defendants point to the deposition testimony of the inventors as evidence of what one of ordinary skill in the art would understand "attached" to mean in the context of an end cap and filter media. The inventors each testified that an end cap "generally" serves to seal the filter media so that dirty fuel is kept separate from the clean fuel and that "typically" or "usually" the end cap is directly and permanently attached to the media. FN21 However, this evidence-which is extrinsic to the patents-does not and cannot establish that the end cap of the claimed invention must be permanently attached to the filter media.FN22

FN21. Defendants also rely on inventor Clausen's testimony. He testified that "it would be very difficult" to seal the filter media by "pushing the end cap up against the media" rather than by permanently attaching the end cap with adhesive. While somewhat relevant to whether the end cap is "permanently" attached to the media, it is more germane to the discussion below as to the meaning of "bonded."

FN22. The Court's ruling should not be interpreted to mean that the end cap caps only the filter media. It is clear from the claims and specifications of the asserted patents that the end cap is a cap for the entire filter.

Further, the evidence does not support a conclusion that one of ordinary skill in the art would understand that the end cap is necessarily directly fixed to the filter media. The specification of the '446 Patent

describes a preferred embodiment as follows: "the media is attached to the first end cap by potting compound or similar adhesive material." Similarly, the asserted claims of the ' 883 Patent include the additional requirement that a portion of the end cap be "bonded" to the filter media. The intrinsic evidence does not support a finding that the end cap must be directly attached to the filter media. FN23

FN23. Plaintiffs point out that the plain and ordinary meaning of "attached" does not require direct attachment. For example, they state that several exhibits were "attached" to their experts' declaration. However, Exhibit B is not "directly" attached to the declaration, because Exhibit A appears between the two.

The Court now turns to the term "annular." Plaintiffs' proposed construction for the term annular finds support in both the claims and the specification. In the asserted claims of the '446 Patent, the filter media is claimed to be "an annular ring of filter media." The specification also discloses an "annular ring of filter media." In the asserted claims and the specification of the ' 883 Patent, the media is described as "a ring-shaped filter media." In contrast, the term disk-shaped-proposed by defendants-is used in the specification of the '446 Patent to describe a central portion spanning the longitudinal wall of the end cap as well as a closure member of the priming pump. Plaintiffs state that the term disk-shaped is more narrow than annular and means "thin and circular." FN24 The fact that the inventors decided to describe some features as "annular" or "ring-shaped" and others as "disk-shaped" creates a presumption that different meanings were intended. *Applied Med. Res. Corp. v. United States Surgical Corp.*, 448 F.3d 1324, 1333 n. 3 (Fed.Cir.2006) ("in the absence of any evidence to the contrary, we must presume that the use of ... different terms in the claims connotes different meanings") (quoting *CAE Screenplates, Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed.Cir.2000)).FN25 Thus, it would be consistent with the intrinsic evidence to construe the "annular portion thereof" to mean a "ring-shaped portion thereof." FN26

FN24. While neither party states this explicitly, it appears that an annular or ring-shaped object is more cylindrical or has more height to it while a disk-shaped object is flat like a compact disc.

FN25. Plaintiffs also point out that, in the context of the "longitudinally extending annular wall" of Claims 24 and 25, defendants propose that "annular" be construed to mean "ring-shaped" as opposed to "disk-shaped."

FN26. The claim construction of the term "annular" in the *Parker v. Wix* litigation is not applicable here. In that case, Parker urged the Eastern District of California to construe "annular" to mean "configured or arranged as either a continuous or non-continuous ring." The California court found that the intrinsic evidence did not define annular as non-continuous. Baldwin urges this Court to follow suit and reject any construction that would permit an interpretation of annular meaning comprised of multiple structures configured as a ring. However, the claims and specifications at issue in the California litigation are not before this Court and the annular structure at issue there was, in fact, made up of multiple elements arranged in a ring (they were protrusions placed "in a generally evenly-spaced annular arrangement"). The construction of that claim term in that context has no bearing on the meaning of the term in the patent at issue here. Defendants, in fact, acknowledge as much in their briefing when they state that the same term used in different patents need not be construed to mean the same thing in both.

Defendants complain that plaintiffs' proposed construction would encompass an end cap made of multiple components that are "arranged as a ring" rather than a single "continuous disk-shaped structure." As stated above, there is no clear evidence that the end cap must be limited to a single component. However, the Court does agree that substitution of the phrase "configured or arranged as a ring" for the word "annular" would cause the asserted claims to not read properly. *Advanced Med. Optics, Inc. v. Alcon Inc.*, 361 F.Supp.2d 370, 380 (D.Del.2005) (rejecting a proposed construction where it would result in redundancy or be illogical).

Accordingly, the Court construes the term "attached at an annular portion thereof to said media" to mean "attached at a ring-shaped portion thereof to said media."

6. "Annular portion surrounding and defining a central opening" / "Said annular portion" / "The annular portion"

Plaintiffs' Proposed Construction: "annular means configured or arranged as a ring." Plaintiffs contend that no further construction is necessary.

Defendants' Proposed Construction: "disk-shaped portion of the first end cap that encircles and fixes the boundaries of the central opening"

Court's Construction: The Court has already construed "annular" to mean "ring-shaped." Thus, the only words to be construed here are "surrounding and defining." The words are found in the following context: "a first end cap ... including an annular portion surrounding and defining a central opening". '446 Patent, Claim 24. The phrase "surrounding and defining" is not repeated in the specification of the '446 Patent and is not used at all in the '883 Patent. The word "surrounding" is used alone to describe other terms in the '446 Patent, but the word "defining" is not.

The Court agrees with plaintiffs that these words need no construction. They are to be given their plain and ordinary meaning and should be readily understood by a jury. Defendants' proposed construction merely offers synonyms for the claimed terms. *See C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 863 (Fed.Cir.2004) (agreeing with litigant's argument that "merely rephrasing or paraphrasing the plain language of a claim by substituting synonyms does not represent genuine claim construction").FN27

FN27. The Court also declines to add the words "of the first end cap" because they are redundant.

7. "Longitudinally extending actuating projection" / "Said actuating projection" / "The actuating projection"

Plaintiffs' Proposed Construction: "actuating projection means an element that protrudes or projects from the surface of another element and that can engage or actuate another mechanism or element." "Longitudinally extending needs no construction. However, to assist the jury, the center line depicted in Figure 18 of the '446 patent is in the longitudinal direction of the filter." Plaintiffs also state, "to the extent that the Court deems a construction necessary, the phrase 'longitudinally extending' means extending in a direction generally parallel to, or coaxial with, the center axis of the filter."

Defendants' Proposed Construction: "projection of the first end cap that is parallel with the central axis of

the filter housing"

Court's Construction: Claim 24 claims a "filter comprising ... a first end cap, ... a longitudinally extending annular end cap wall, ... a central portion spanning said annular end cap wall [and] a longitudinally extending actuating projection having a base connected to said central portion." Claim 25, on the other hand, claims "a filter comprising ... a first end cap, ... said first end cap including a longitudinally extending annular end cap wall ... a central portion spanning said annular end cap wall, and a longitudinally extending actuating projection." The critical question is whether the actuating projection must necessarily be part of or on the end cap or whether it may project from a different element. To resolve this question, the Court must determine if the "central portion"-and, thus, the actuating projection-of Claim 24 is a part of the end cap or not. The central portion "prevents connection to a nipple portion that extends too far into the element. As a result, only the proper element may be mounted to the head." '446 Patent, Abstract.

Defendants, of course, argue that the central portion is a part of the annular end cap wall which, in turn, is a part of the first end cap. However, in Claim 24 the central portion, end cap wall and projection are claimed as elements of the filter, not the end cap ("said filter comprising ... [each of the elements]"). Contrast this with Claim 25, which claims "a filter comprising ... a first end cap, ... said first end cap including a longitudinally extending annular end cap wall ... a central portion spanning said annular end cap wall, and a longitudinally extending actuating projection."

In the specification, one "alternative preferred embodiment" includes a filter with a first end cap. And, the "first end cap has a central portion with fluid passages therethrough transversely spanning the annular end cap wall." '446 Patent, col. 4-5. Thus, in this preferred embodiment, the central portion is part of the first end cap. However, in another embodiment, the specification merely indicates that the "central disk shaped portion spans the longitudinal wall of the first end cap. [And, the] actuating projection extends longitudinally outward from the central portion." '446 Patent, col. 12. Defendants argue that because the figure depicting this latter embodiment shows the central portion as part of the end cap, the invention claimed in Claim 24 should be thus limited. *See* Figure 17, element # 220. However, a third embodiment disclosed in the specification explicitly states that the central portion and actuating projection may be part of a second end cap rather than the first end cap. '446 Patent, col. 14-15; Figure 24.

Given this fact, defendants also rely on a statement made by plaintiffs during prosecution: "another advantage of the invention is that because the actuating projection is surrounded by the filter media and is supported on an end cap which is attached to the filter media, the presence of the projection assures the presence of the media." This statement was made during prosecution to distinguish the claimed invention from the prior art.

Finally, defendants point to the deposition testimony of the inventor who conceived of the actuating projection itself. Russell Jensen testified as follows:

Q. Is it fair to say that in the description provided in the '446 patent that the only description of a location of the protrusion is that it is attached to the end cap and not to the tap plate?

...

A. Yes, the description says that the protrusion is attached to the end cap, and end cap, not to the tap plate.

...

Q. Is there a reason why the protrusion would be part of the end cap instead of part of the tap plate?

A. Yes. The tap plate is a lot thicker material and is hard to form into that shape. And also the tap plate needs to be talking about a steel tap plate. A steel tap plate would have to be threaded with a tap, and the protrusion would be in the way of the tap.

Q. So the protrusion would have to be on the end cap in the embodiment that's shown in Figure 17; is that correct?

A. Yes.

In sum, the asserted claims indicate that the actuating projection may be an element of the first end cap or of the filter itself. The claims are a part of the specification and the inventors' disclosure. *See Phillips*, 415 F.3d at 1315. In order to conclude that the invention should be limited to having the projection located only on an end cap, the written description portion of the specification or the prosecution history must clearly indicate to one of ordinary skill in the art that the inventors viewed their invention as being so limited. *Id.*

The Court finds that the intrinsic evidence does not compel a limitation in the claims that the projection be located on an end cap. The overriding factor in the Court's view is the fact that Claim 24 claims the central portion, end cap wall and actuating projection as elements of the filter itself, not the end cap. By reasoning similar to that applied above in connection with the claim term "attached to said media", the Court finds that the statement in the prosecution history is not so clear and unambiguous as to require a conclusion that the actuating projection must be located on the end cap.

Accordingly, the term "actuating projection" means "an element that protrudes or projects from the surface of another element of the filter." FN28

FN28. Plaintiffs propose that the projection can actuate any other element. This construction does not find support in the intrinsic evidence. The projection must actuate the spring-actuated valve in the nipple portion of the filter head so that the fuel may flow through the nipple portion. Plaintiffs admit as much at page 27 of their opening brief.

The Court now turns to the term "longitudinally extending." The parties are in near agreement on the meaning of this term. The Court agrees that it means "in a direction generally parallel to the center axis of the filter." FN29

FN29. Plaintiffs spend a great deal of time arguing that "longitudinally" is more broad than "parallel" or "axially" or coaxially"-terms which are used elsewhere in the claims to describe the orientation of the projection. However, plaintiffs do concede that if "the Court feels it would provide some context for the jury and be helpful, ... the jury [should] be instructed" that the projection extends in a generally parallel direction. This is the construction the Court adopts.

Thus, the term "longitudinally extending actuating projection" is construed to mean "an element that

protrudes or projects from the surface of another element of the filter in a direction generally parallel to the center axis of the filter."

8. "Said actuating projection being stationary relative to said media"

Plaintiffs' Proposed Construction: Plaintiffs state no construction is necessary.

Defendants' Proposed Construction: "said actuating projection immoveable relative to said media"

Court's Construction: The Court agrees that the term stationary will be easily understood by a jury. There is nothing in the intrinsic evidence that requires it be given any meaning other than its plain and ordinary one.FN30 No construction is necessary.

FN30. The term "stationary" was apparently added during prosecution to overcome a rejection over a piece of prior art that disclosed a moveable projection. Defendants urge the Court to thus require the projection be "immoveable" given the prosecution history. The Court declines to substitute one synonymous term for the other.

9. "In circumferentially surrounding relation"

Plaintiffs' Proposed Construction: "radially within the circumference"

Defendants' Proposed Construction: "encircling on all sides"

Court's Construction: This disputed claim term encompasses the relationship between a seal and the free end of the actuating projection. As plaintiffs explain it, "when looking downward from the top of the filter, the question becomes whether the free end of the actuating projection is inside or outside of the circumference of the annular seal." The term does not appear in the specification at all, but it was discussed during prosecution. Certain of the claims were rejected during prosecution over a patent to Shah. The Shah patent disclosed a ring-shaped seal near the top of the filter media and a projection near the bottom. The projection was located such that if one looked downward from the top of the filter, the projection would be located within the circumference of the seal.

The inventors explained to the examiner during prosecution that such an orientation did not qualify as "circumferentially surrounding." They stated "the annular seal ... in the Shah filter assembly is not in circumferentially surrounding relation and radially outwardly spaced from the free end of the [projection]." Defendants rely on this statement in support of their proposed construction. Defendants assert that, as a result of the characterization made by plaintiffs during prosecution, the seal must be both circumferentially *and axially* aligned with the end cap. In other words, under defendants' construction, the projection would not only be within the circumference of the seal when looking downward, it would also be within the axial or longitudinal dimension of the seal when looking at the filter from the side.

Plaintiffs offer a different explanation for their seeming disclaimer. They now state that the seal in Shah is not "in circumferentially surrounding relation" to and "radially outwardly spaced" from the free end of the projection because the seal is part of the filter head permanently attached to the vehicle engine while the projection is attached to the removable filter element. This argument was not made during prosecution and the Court will not allow plaintiffs to make it now. The public notice function of patents cannot be served if

others cannot reasonably rely on the intrinsic evidence in discerning what a patent actually claims. The only reasonable construction that this Court can discern from the intrinsic evidence is one in which the seal of the '446 Patent is in circumferentially and axially surrounding relation to the free end of the actuating projection. In this respect, the Court agrees with defendants.

However, the Court finds defendants' proposed language confusing. As plaintiffs point out, the seal cannot "encircle" the end of the projection on all sides because to do so would block the flow of fuel from the nipple into the filter. The Court construes the term as follows: "in circumferentially and axially surrounding relation."

10. "Circumferentially Bounding"

Plaintiffs' Proposed Construction: "located at the boundary of the circumference"

Defendants' Proposed Construction: "encircling and contacting"

Court's Construction: This claim limitation is similar to one contained in Claim 20. While Claim 20 requires a seal to be "adjacent" to the central opening of the first end cap, Claims 24 and 25 require the seal to "circumferentially bound" that central opening.FN31 The primary dispute here centers on whether the seal must touch the central opening of the first end cap. Defendants' expert witness, Mr. Feldhaus, states it must. Otherwise, dirty fuel might bypass the filter media and enter the engine. Plaintiffs' expert, Dr. Garris, on the other hand, states that one of skill in the art would understand that the seal need not touch the central opening. He states that "a flat 'gasket' type annular seal could be placed near the central opening, without touching it, and still seal the central opening." Dr. Garris does not provide any more detail on how such a gasket might operate. The Court agrees with Mr. Feldhaus that the seal would be inoperable if it did not touch the central opening.FN32

FN31. As stated above, the term "adjacent" was not construed, because Claim 20 is indefinite.

FN32. Plaintiffs complain that it is impossible for the seal to touch an empty space such as an opening. To the contrary, it seems plain to the Court that any element that forms the boundaries of an empty space "touches" that defined space.

The dictionary definitions relied on by plaintiffs do not convince the Court to find otherwise. In fact, plaintiffs' dictionary definitions appear consistent with defendants' proffered construction. The dictionary relied on by plaintiffs defines "circumferentially" as "pertaining to the circumference of a circle." And, "bounding" means to "identify and set the boundaries of." Moreover, plaintiffs' proposed construction is merely a rephrasing of the term and is not particularly helpful.

However, defendants' proposed construction is not without flaws of its own. The Court does agree with plaintiffs that defendants' proposed term "encircling" is misleading and inaccurate. The seal bounds the circumference of a two-dimensional circular opening. It does not encircle the entire surface area of a three-dimensional sphere.

For these reasons, the Court construes "circumferentially bounding" to mean "touching and defining the

circumference of."

11. "*Nipple Portion*"

Plaintiffs' Proposed Construction: "an extending portion through which fluid can flow" FN33

FN33. The above-cited proposed construction is taken from plaintiffs' briefing. In the parties' joint claim construction chart, plaintiffs' proposed construction was simply "a portion through which fluid can flow."

Defendants' Proposed Construction: "threaded cylinder that extends from the filter head"

Court's Construction: The term "nipple portion" appears in the preamble of Claims 24 and 25: "A filter for mounting to a filter head including a nipple portion having a valve element therein, said filter comprising ..." FN34

FN34. Plaintiffs purport to reserve the right to argue at a later time that the preamble is not limiting. However, that time is now. If the preamble is limiting, such a fact will be determined during claim construction, not later. *Bell Commc's Research v. Vitalink Commc's Corp.*, 55 F.3d 615, 620, 621 (Fed.Cir.1995) ("We construe claim preambles, like all other claim language, consistently with [the oft-cited principles of claim construction.] ... Preamble construction thus presents no deeper mystery than the broader task of claim construction, of which it is but a part."); *cf. NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1305 (Fed.Cir.2005) ("if the preamble helps to determine the scope of the patent claim, then it is construed as part of the claimed invention").

Plaintiffs argue that defendants' proposed construction is both too broad and too narrow-too broad because it would include a structure such as a solid steel bolt or the base of a light bulb and too narrow because it adds a "threaded" and "cylindrical" limitation. Plaintiffs assert that the function of the nipple portion is merely to "fluidly connect the filter head to the filter."

Defendants argue that the '446 Patent is directed only to spin-on filters which, by definition, require a threaded element on both the filter head and the filter element so that the element may be spun on to the head. Defendants also argue that the only method the inventors disclosed for connecting the element to the head is via a threaded nipple portion. In further support, defendants point to extrinsic evidence such as the deposition testimony of one of the inventors and the attorney who prosecuted the application that matured into the '446 Patent. Inventor Jensen testified that the '446 Patent does not disclose any location for the attachment of the filter head other than by way of the nipple portion and that the nipple would be threaded so it could engage a corresponding threaded portion around a projection on the filter element. Attorney Hunter testified similarly. However, testimony as to what the patent discloses cannot change what the patent actually discloses on its face.

None of the asserted claims include a limitation that the nipple portion be threaded. Significantly, other claims do include this limitation. It would be improper for the Court to import this limitation into the asserted claims absent explicit evidence establishing the inventors viewed their invention as so limited in all embodiments. *See Phillips*, 415 F.3d at 1315 ("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"). Such evidence is lacking.

In the specification, the nipple portion is described several times. First, it is described as part of the "alternative preferred embodiment" that is disclosed in the "Disclosure of Invention" section of the '446 Patent. This embodiment "includes a filter with a nipple portion which threadably attaches the element to the head." '446 Patent, col. 4. Another preferred embodiment is specifically identified as including a "spin on" type filter element with a tap plate that "engages a central downward extending nipple portion or spud of the head." '446 Patent, col. 6. In yet a third embodiment, the nipple portion is described as being "threadably engaged with the head and is also threadably engageable with the element." '446 Patent, col. 11.

While the specification does describe the nipple of the preferred embodiments as being threaded, the Court agrees with plaintiffs that the invention as a whole is not so limited. The invention is not limited to spin-on type filters. FN35 Additionally and more importantly, several claims do contain the threaded limitation.FN36 Absent a clear statement limiting the invention to filter heads including threaded nipple portions, the Court will not read this limitation into the claims.FN37

FN35. Spin-on type filters are mentioned twice in the '446 Patent. Once in the "Background of the Invention" section as a "popular type of filter" and once as a "best mode of carrying out the invention."

FN36. Defendants point out that the claims that do require the nipple to be threaded require *external* threads. Defendants argue that the doctrine of claim differentiation does not preclude a construction of the phrase "nipple portion" to mean "threaded" because the threads of the asserted claims could be internal. Defendants' argument is unavailing and finds no support in the intrinsic evidence.

FN37. Plaintiffs point out that several of the figures in the '883 Patent depict a nipple portion that is not threaded. However, the '883 Patent is not related to the '446 Patent in that they do not share a common lineage of patent applications. And, none of the claims asserted in the '883 Patent include the term "nipple portion" at all. The fact that the nipple portion in the '883 Patent can be unthreaded does not compel the same construction with respect to the term as used in the '446 Patent.

Defendants' concern that plaintiffs' proposed construction would include distinct structures of the filter head such as the inlet and outlet appears unfounded. There is no evidence that plaintiffs might try to argue the inlet to the filter head is actually the nipple portion. And, as with the end cap and the tap plate discussed above, the '446 Patent clearly identifies the nipple as a separate and distinct structure from the inlet and outlet of the filter head. The extrinsic evidence relied upon by defendants cannot overcome the intrinsic record.

As for whether the nipple must necessarily be cylindrical, it is never described as such in the written description of the '446 Patent, though it is depicted as such in the figures. The mere fact that the figures depict various preferred embodiments showing a cylindrical nipple is insufficient to add such a limitation to the claims.

The Court construes the term "nipple portion" to mean "a portion extending from the filter head through which fluid can flow." FN38

FN38. Plaintiffs do not dispute that the nipple portion is on the filter head.

12. "Longitudinally extending annular end cap wall" / "Said annular end cap wall"

Plaintiffs' Proposed Construction: "annular means configured or arranged as a ring." "Annular end cap wall means an annular wall of or forming any part of the end cap." "Longitudinally extending needs no construction. However, to assist the jury, the center line depicted in Figure 18 of the '446 patent is in the longitudinal direction of the filter."

Defendants' Proposed Construction: "ring-shaped portion of the first end cap that extends longitudinally into the interior of the filter media."

Court's Construction: This claim term appears in Claims 24 and 25. Claim 24 claims a filter comprising, among other things, "a longitudinally extending annular end cap wall supported on said first end cap, said annular end cap wall disposed radially inwardly from said media." Claim 25 similarly claims a filter comprising a first end cap, "said first end cap including a longitudinally extending annular end cap wall, said annular end cap wall disposed radially inward from said media."

The Court has already construed "annular" to mean "ring-shaped." And, the Court has construed "longitudinally extending" to mean "in a direction generally parallel to the center axis of the filter." Defendants now ask for a new definition of "longitudinally extending." They ask that this term now be limited to mean extending "into the interior of the filter media."

As to the "end cap wall", plaintiffs contend this is a "wall of or forming any part of the end cap." Defendants argue it is a "portion of the first end cap" and, as stated above, that it must extend "into the interior of the filter media." FN39 Because the claims already require that the wall be part of the first end cap, the Court declines to add the limitations sought by defendants that the wall is a portion of the first end cap. As to whether or not the wall must extend into the central chamber, the claims require that the wall be disposed *radially* inward from said media and that the wall extend *longitudinally* as well. The Court agrees that the plain meaning of this requires the wall to extend into the central chamber.

FN39. Plaintiffs draw a semantic distinction between a wall "disposed inwardly from the filter media" and a wall that "extends into the interior of the filter media." The Court agrees that defendants proposed construction, if read literally, would require the wall to be inside the media itself rather than the central chamber formed by the ring of media. However, based upon a fair reading of defendants' claim construction briefing, the Court is convinced that the defendants intended to argue the latter. In any event, as is discussed below, the asserted claims already require that the wall be disposed radially inward from said media. Defendants believe the wall must also be longitudinally within the chamber formed by the media. However, as plaintiffs point out, the figures in the patent depicting such an arrangement are directed only to a preferred embodiment and do not add any limitations not already found in the claims. The claims already require the wall to extend longitudinally.

Plaintiffs' proposed construction, at first glance, merely rephrases the disputed term. However, plaintiffs' proposed construction is broader than the claim language. Plaintiffs' end cap wall could be located anywhere

on the end cap. But, Claim 24 and 25 require that the wall be disposed radially inward from the filter media.

In sum, the Court construes "longitudinally extending annular end cap wall" to mean "ring-shaped end cap wall that extends into the central chamber in a direction generally parallel to the center axis of the filter."

13. "*Housing*"

Plaintiffs' Proposed Construction: "a case, canister, enclosure, cover, or container for a filter media"

Defendants' Proposed Construction: "outer cylindrical canister that encloses the filter media"

Court's Construction: This claim appears in all of the claims but the parties only discuss it in the context of the '883 Patent. Claim 1 of the '883 Patent claims "a filter element comprising ... a housing receiving [the] filter media ring ..." The '883 specification states that in a preferred embodiment, the filter element "includes an outer cylindrical canister or housing." Plaintiffs argue that the term housing "should be construed in accordance with its ordinary and customary meaning." Even so, plaintiffs propose a construction consisting of synonymous terms.

Defendants argue that plaintiffs' construction is so broad that it could include a structure such as the hood of the vehicle containing the patented filter element. Defendants' concern is meritless. The claims of the '883 Patent are limited to filter elements. Each asserted claim begins "a filter element comprising ..." It is difficult to believe that plaintiffs would argue that the hood of a vehicle could be a component of a removable filter element that connects to a filter head on the underside of a vehicle's engine.

Defendants would also have the Court add that the housing "encloses" the filter media. The Court finds such a limitation would be redundant and perhaps more limiting than that required by the claims and will not add it.

As to whether the housing must be cylindrical, the claims do not require it to be so. The specification does describe the housing twice and in both instances it is described as cylindrical, but both discussions are in the context of preferred embodiments. The Court will not read in this limitation.FN40

FN40. Other elements in the claims of the '883 Patent are described as cylindrical. This indicates that when the inventors considered an element to be cylindrical, they claimed it as such. And, they chose not to include this limitation for the claimed housing.

Defendants then turn to extrinsic evidence. Inventor Clausen testified that he has never seen a housing that is not cylindrical. *See Clausen Deposition at 73-74.* However, this fact is not dispositive. Moreover, defendants argument that a housing must be cylindrical to be spun on is unavailing. First, the claims are not limited to spin-on filters.FN41 Second, in a spin-on filter, the housing itself might be rectangular or of some other shape while the interior of the threaded portion of the housing is cylindrical such that the housing could be spun on to the filter head.

FN41. The *only* reference in the '883 Patent to spin-on filters is in the "Background of the Invention" section of the specification: "A popular type of filter construction is a type that has a filter head to which a replaceable 'spin-on' element is attached. The head is a permanent part of the fuel system of the vehicle and

includes inlet and outlet connections to the fuel lines. The filter element may be readily removed from the filter head and a new one attached without removing the filter head from the fuel line connections."

In light of the foregoing evidence and arguments, the Court determines that the term "housing" means "a case, canister, enclosure, cover, or container for a filter media."

14. "Closed End"

Plaintiffs' Proposed Construction: "the end at which the housing does not allow insertion of the filter media"

Defendants' Proposed Construction: "end closed to the atmosphere"

Court's Construction: The claim term appears in Claim 1 of the '883 Patent in the following context: "a housing receiving [the] filter media ring, said housing including a closed end and an open end, the first end of the filter media ring being located toward the open end of the housing, and the second end of the filter media ring being located toward the closed end of the housing."

For the first and only time in their briefing, plaintiffs argue that this term should not be construed to carry its plain and ordinary meaning. Plaintiffs argue that the term is "used as a reference point in describing the spatial arrangement of the components in the claimed filter element." According to plaintiffs, "one end (the open end) receives the filter media ring and the other end (the closed end) cannot." Plaintiffs' expert Dr. Garris provides testimony in support of this construction.FN42 He states that the figures in the '883 Patent depict the closed end of the housing being open to the atmosphere. He provides this opinion even though the term "closed end" is never used in the written description much less to describe the drawings that accompany that written description. The specification, when it discusses the housing, describes it instead as having "end walls." The lower end wall, in turn has a "central circular opening." This circular opening "allows for the insertion of a removable cap." According to this, plaintiffs argue that the "closed end" cannot be closed to the atmosphere. Apparently, plaintiffs are asking the Court to construe the closed end to encompass the lower end wall along with its circular opening.FN43

FN42. The use of the term "closed end" in an unrelated patent, directed to a garbage can with air vent holes in the bottom, relied upon by Dr. Garris to bolster his opinion is irrelevant to how the inventor of the '883 Patent chose to define this term.

FN43. Defendants do not argue that the "lower end wall" with its "central opening" is not part of the "closed end" of the housing. Nor do defendants argue that having the removable cap inserted in the central opening renders the "closed end" completely closed.

Defendants argue that the disputed term must be construed consistent with its plain and ordinary meaning. Defendants urge that a claim is to be construed "as written, not as the patentees wish they had written it." *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374 (Fed.Cir.2004). Defendants also rely on the specification. In describing the second end cap of the filter media, the inventors said the second end cap "is completely closed across the diameter of the end cap." Rather than supporting defendants' argument, the

Court feels this statement undermines it. In this particular instance, the inventors apparently felt it was necessary to state that the end cap is "completely closed across its diameter" rather than simply state it is closed. This indicates to the Court that "completely closed across a diameter" is different from "closed." It would not be inconsistent, then, to have a "closed end" with a "central opening."

Given the intrinsic evidence of record, the Court agrees with plaintiffs that the closed end need not be closed to the atmosphere. The "closed end" is construed to mean "an end at which the housing does not allow insertion of the filter media."

15. "Open End"

Plaintiffs' Proposed Construction: "the end at which the housing allows insertion of the filter media"

Defendants' Proposed Construction: "end open to the atmosphere"

Court's Construction: For the reasons given above in connection with construction of the term "closed end", the Court construes "open end" to mean "an end at which the housing allows insertion of the filter media."

16. "Annular body portion bonded to the filter media ring"

Plaintiffs' Proposed Construction: "annular means configured or arranged as a ring." "Bonded means connected or held together." Plaintiffs state no further construction is necessary.

Defendants' Proposed Construction: "disk-shaped body portion of the end cap permanently and directly fixed with adhesive to the filter media ring"

Court's Construction: This dispute centers on the word "bonded" and whether it means "connected or held together" or "directly fixed with adhesive." FN44 This claim element in the '883 Patent appears to correspond to the "attached at an annular portion thereof to said media" found in the '446 Patent. The specification of the '883 Patent indicates that the body portion is "preferably adhesively bonded to the end of the media." This is the only instance in which the word "adhesive" is used in the patent. Earlier in the specification, the body portion is merely described as "bonded" to the end of the media. It is not clear whether the body portion be preferably bonded or that it always be bonded but that the method of bonding is preferably with adhesive. In either case, this is a description of a preferred embodiment and the Court will not interpret "bonded" to mean "permanently and directly fixed with adhesive" unless this is the customary and ordinary meaning of the term.

FN44. The Court has already construed "annular." And, Claim 1 of the '883 Patent already requires the annular body portion to be a part of the end cap: "the end cap including an annular body portion."

Plaintiffs argue that bonding "can be accomplished in a variety of ways, including by compression or friction" or "mechanically in surface-to-surface relation." Plaintiffs also point to a dictionary definition of "bonded" that defines the word as "joined securely, as with glue or cement." Defendants argue that the dictionary definition cited by plaintiffs actually contradicts their proposed construction. Defendants' dictionary states that glue and cement are types of adhesive substances.

As evidence of what one of ordinary skill in the art would understand bonded to mean, defendants offer the

deposition testimony of inventor Clausen. This testimony was related earlier in this Opinion in the context of determining whether the end cap is permanently attached to the media. He testified it would be "very difficult" but not impossible.

The Court finds it need not turn to the inventor testimony because the plain and ordinary meaning of "bonded" means to bond adhesively. Both dictionary definitions confirm this understanding. And, in this case (as opposed to the "attached to said media" claim term found in the '446 Patent), the Court finds that to be bound together the seal and the media of the '883 Patent claims must be directly fixed to one another. The plain and ordinary meaning of the term "bound with adhesive" carries with it an understanding that the two things bound together are directly bound.

The Court construes this claim element to mean "ring-shaped body portion directly fixed with adhesive to the filter media ring."

CONCLUSION

For the foregoing reasons, the disputed claim terms are construed as follows: "Said one of said first and second end caps" lacks antecedent basis and, therefore, renders Claim 20 of the '446 Patent invalid for indefiniteness. "End cap" means "structure that caps the filter." "Attached at an annular portion thereof to said media" means "attached at a ring-shaped portion thereof to said media." "Annular portion surrounding and defining a central opening" means "ring-shaped portion surrounding and defining a central opening." "Longitudinally extending actuating projection" means "an element that protrudes or projects from the surface of another element of the filter in a direction generally parallel to the center axis of the filter." "Said actuating projection being stationary relative to said media" needs no construction. "In circumferentially surrounding relation" means "in circumferentially and axially surrounding relation." "Circumferentially bounding" means "touching and defining the circumference of." "Nipple portion" means "a portion extending from the filter head through which fluid can flow." "Longitudinally extending annular end cap wall" means "ring-shaped end cap wall that extends into the central chamber in a direction generally parallel to the center axis of the filter." "Housing" means "a case, canister, enclosure, cover, or container for a filter media." "Closed end" means "an end at which the housing does not allow insertion of the filter media." "Open end" means "an end at which the housing allows the insertion of the filter media." "Annular body portion bonded to the filter media ring" means "ring-shaped body portion directly fixed with adhesive to the filter media ring."

IT IS SO ORDERED.

N.D.Ohio,2008.
Parker-Hannifin Corp. v. Baldwin Filters, Inc.

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