

United States Court of Appeals for the Federal Circuit

00-1203, -1215

PALL CORPORATION,

Plaintiff-Cross Appellant,

v.

PTI TECHNOLOGIES INC.,

Defendant-Appellant,

and

KURABO INDUSTRIES, LTD.,

Defendant.

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H. Michael Hartmann , Leydig, Voit & Mayer, Ltd., of Chicago, Illinois, argued for plaintiff-cross appellant. With him on the brief were Christopher T. Griffith, and Gregory C. Bays.

Arthur Wineburg , Pillsbury Winthrop LLP, of Washington, DC, argued for defendant-appellant. With him on the brief were Susan T. Brown, Michael A. Conely, Michael R. Dzwonczyk, and Janine A. Carlan.

Appealed from: The United States District Court for the Eastern District of
New York

Judge David G. Trager

United States Court of Appeals for the Federal Circuit

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DECIDED: AUGUST 7, 2001

Before SCHALL, Circuit Judge, FRIEDMAN, Senior Circuit Judge, and DYK, Circuit Judge.
DYK, Circuit Judge.

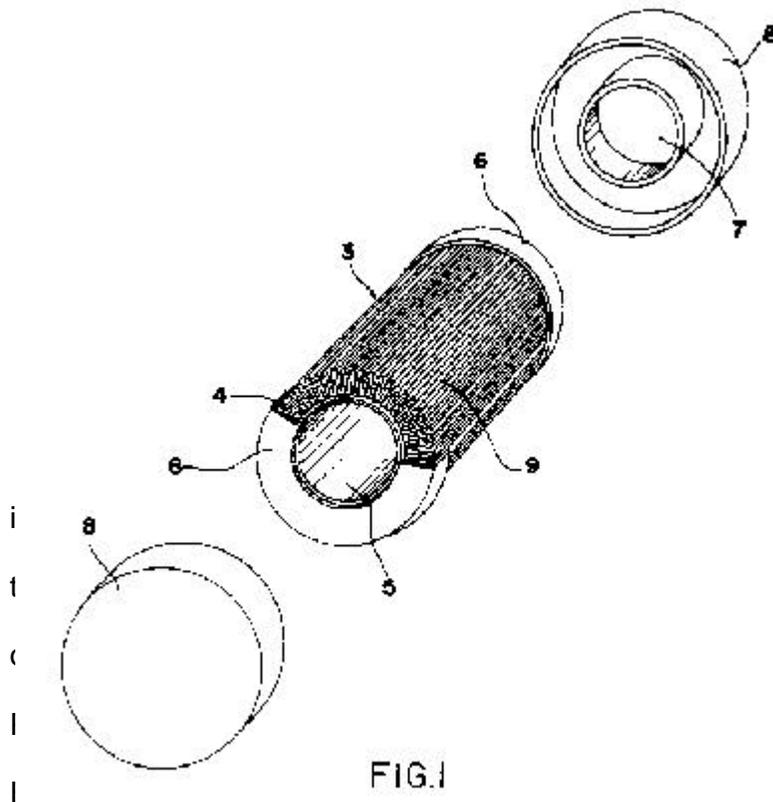
PTI Technologies Inc. (“PTI”) appeals from the decision of the United States District Court for the Eastern District of New York granting the motion of Pall Corporation (“Pall”) for summary judgment of non-infringement of U.S. Patent No. 4,663,041 (the “’041 patent”), the dismissal of PTI’s counterclaim for infringement of the ’041 patent, and the denial of PTI’s request for a permanent injunction. Pall Corp. v. PTI Techs. Inc., Nos. CV-97-1134, CV-98-2871 (E.D.N.Y. Jan. 11, 2000) (“judgment” or “Pall II”). Pall cross-appeals the district court’s grant of PTI’s motion for summary judgment of non-infringement of U.S. Patent No. 4,609,465 (the “’465 patent”), and the denial of Pall’s request for a permanent injunction. We affirm the district court’s grant of summary judgment of non-infringement of the ’041 patent. Although we find that the district court adopted an improper construction of the “end cap” limitation of claim 1 of the ’465 patent based on the claim language and the specification, we hold that the ’465 patent should be construed to exclude any interpretation that includes subject matter disclaimed during prosecution, and we vacate and remand so that the district court may determine whether a person of ordinary skill in the art would conclude that coverage of the alleged infringing devices was disclaimed during prosecution.

BACKGROUND

After an initial filing in the U.S. District Court for the Central District of California on a patent not involved in this appeal, PTI sued Pall for infringement of the '041 patent. The case was then transferred to the U.S. District Court for the Eastern District of New York and consolidated with Pall's infringement suit against PTI on the '465 patent. This appeal concerns the '041 patent assigned to PTI and the '465 patent assigned to Pall. Both patents relate to filter technology for filtering high-temperature corrosive chemicals such as hot acids used in the etching process of semiconductor chips.

I. '041 Patent

PTI is the assignee of the '041 patent, which relates to a filter element made wholly of fluorocarbon resin. The patent addresses the shortcomings of prior art filter elements where the filter membrane is the only part of the device that is made of fluorocarbon resin. The other non-fluorocarbon resin parts often had poor chemical and temperature resistance, and their use resulted in metal leaching. '041 patent, col. 1, ll. 37-43. Figures 1 and 2 of the '041 patent illustrate a preferred embodiment as follows:



2, the filter element includes a filter comprising a filter membrane 1 made of plastic fluorocarbon resin. The filter is in a sandwich form, so that the filter is shown in Figure 2. The filter element is formed by two end parts 4 of the filter element are made of thermoplastic fluorocarbon resin 8, one of which includes a central opening 7 of "thermoplastic fluorocarbon resin," and the other is made of thermoplastic resins PFA, FEP and EPE.

The '041 patent contains five claims. Independent claim 1, which is at issue in this appeal, reads as follows:

1. A filter element consisting of fluorocarbon resin elements and comprising as essential elements a filter material produced by folding a sandwich-form sheet comprising a filter membrane made of tetrafluoroethylene resin (PTFE) and net supporters made of tetrafluoroethylene/perfluoroalkyl vinyl ether copolymer resin (PFA), tetrafluoroethylene/hexafluoropropylene copolymer resin (FEP) or tetrafluoroethylene/hexafluoropropylene/perfluoroalkyl vinyl ether terpolymer resin (EPE) superimposed on the both surfaces thereof into a pleat form and liquid-tightly welding the edges parts of the both sides of the pleated sheet, sealed end parts produced by embedding the both end part of said filter material except the central openings into a thermoplastic fluorocarbon resin selected from the group consisting of PFA, FEP and EPE to force the resin into the pleats, whereby the both end parts are each integrally and tightly welded, and fluorocarbon resin caps welded liquid-tightly with said sealed end parts.

'041 patent, col. 6, ll. 30-48 (emphasis added).

Pall moved for summary judgment of non-infringement regarding the '041 patent. In a memorandum and order dated December 22, 1999, the district court construed the claims of the

'041 patent and granted summary judgment of non-infringement of the '041 patent in favor of Pall. Pall Corp. v. PTI Techs. Inc., Nos. CV-97-1134, CV-98-2871 (E.D.N.Y. Dec. 22, 1999) (“order” or “Pall I”).

The district court construed the claims of the '041 patent as requiring that the net supporters be made entirely of one of PFA, FEP, or EPE, and found that the claims were not literally infringed by the filter products of Pall which do not possess the claimed net supporters made entirely of PFA, FEP, or EPE. Pall I, slip op. at 18-19. The district court also held that the Pall filter products did not literally infringe because they do not have a fluorocarbon end cap welded thereto. Id. at 25. Lastly, the district court held that the Pall product did not infringe under the doctrine of equivalents. Id. at 25-26. The district court accordingly granted summary judgment in favor of Pall on the '041 patent. This judgment was entered on January 11, 2000. Pall II, slip op. at 1-2.

II. '465 Patent

Pall is the assignee of the '465 patent. The '465 patent is directed toward a filter cartridge for removing particulates from a destructive fluid such as hot acid or solvent. '465 patent, abstract, ll. 1-3. Figure 1 of the patent illustrates a preferred embodiment of the filter cartridge as follows:

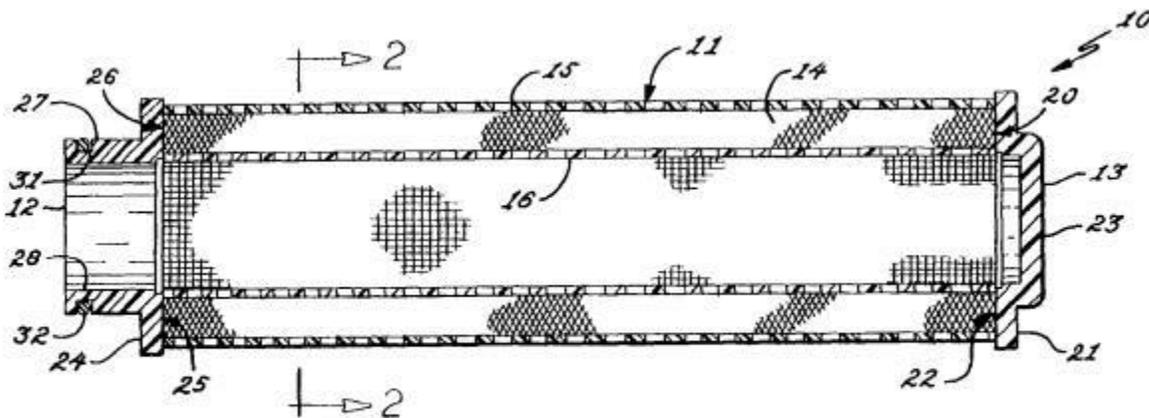


FIG. 1

a cylindrical
; all of the
are highly
ents. '465
13 serve to
; the filter

arrangement. Id. at col. 3, ll. 15-17. In the preferred embodiment, the bottom end cap 13

completely encloses the bottom end 20 of the filter arrangement. Id. at ll. 19-25. Unlike the bottom end cap, the top end cap 12 includes a central aperture 28 that allows the destructive fluid to enter or exit the central portion of the filter arrangement. Id. at ll. 28-32.

During operation, the contaminated destructive fluid that surrounds the outside of the filter arrangement is passed radially inwardly through the perforated outside cage 15, through the filter composite 14, through the perforated core 16, and into the central hollow cylindrical portion of the filter cartridge. Id. at col. 3, l. 60 to col. 4, l. 1. During this process, the filter composite removes the particulates that are larger than a predetermined size. Id. at col. 4, ll. 1-4. The purified liquid then passes out of the central aperture 28 in the top end cap to a reclamation system (not shown). Id. at ll. 7-10.

The '465 patent contains sixteen claims, claims 1 and 9 being at issue in this appeal. Claim 1 reads as follows:

1. A filter cartridge for removing particulates from a destructive fluid, said filter cartridge comprising a cylindrical filter arrangement having a generally annular cross section and including a cylindrical microporous fluoropolymeric filter for removing particulate contaminants from fluid flowing through the filter and further including a cylindrical fluoropolymeric structure coaxially disposed adjacent the filter for supporting the filter, first and second impervious fluoropolymeric end caps concentrically disposed adjacent first and second ends, respectively, of the filter arrangement, said first end cap including a cylindrical protrusion projecting away from the filter arrangement and containing means defining a central aperture communicating with the center of the filter arrangement and said second end cap enclosing said second end of said filter arrangement, and a sealing ring cooperatively arranged with the first end cap, at least the external surface of said sealing ring comprising a fluoropolymeric material.

'465 patent, col. 5, ll. 36-54 (emphasis added). Claim 9, which depends from claim 1, reads as follows:

9. The filter cartridge of claim 1 wherein the first and second end caps comprise a PFA fluorocarbon polymer.

Id. at col. 6, ll. 22-24 (emphasis added).

Pall filed suit, claiming that PTI had infringed claims 1 and 9 of the '465 patent. PTI moved for summary judgment on the issue of infringement by PTI's Fluoroflow™ filter cartridges of the '465 patent. In the same December 22, 1999, memorandum and order granting summary judgment of non-infringement of the '041 patent, the district court construed claims 1 and 9 of the '465 patent and granted summary judgment of non-infringement in favor of PTI. Pall I, slip op. at 6-13. In its order, the district court construed claims 1 and 9 of the '465 patent, holding that:

The words “first and second impervious fluoropolymeric end caps” in the context of the claims of the '465 patent means that each end cap is a unitary structure that is applied to respective unsealed ends of a “filter arrangement.” In the context of the Miller '465 patent, the filter arrangement is an element having a generally annular cross-section and includes a cylindrical microporous fluoropolymeric filter (e.g., PTFE membrane) and a cylindrical fluoropolymeric structure adjacent the filter for supporting the filter (e.g., core). In other words, each claimed “impervious end cap” cannot comprise two separate components, wherein the first component is welded to one end of an unsealed filter arrangement to provide a liquid-tight sealed end, and the second component is welded onto the previously-formed sealed end.

Id. at 9 (emphasis added). The district court then performed an infringement analysis, holding that the accused Fluoroflow™ filter cartridges do not infringe because the end caps of the Fluoroflow™ filter cartridges require two components, a potting disk and a fitting, and are applied in a two-step process, whereas “the claimed ‘impervious fluoropolymeric end cap’ requires a single component of the claimed filter, applied in a single-step, to provide all the functions thereof” Id. at 12-13. The district court therefore held that the Fluoroflow™ cartridges do not infringe claims 1 and 9 of the '465 patent either literally or under the doctrine of equivalents.

DISCUSSION

I. Jurisdiction and Standard of Review

We have jurisdiction over this appeal pursuant to 28 U.S.C. § 1295(a)(1) (1994). We review a district court's grant of a motion for summary judgment without deference. Ethicon Endo-Surgery, Inc. v. United States Surgical Corp., 149 F.3d 1309, 1315, 47 USPQ2d 1272, 1275 (Fed. Cir. 1998).

A patent infringement analysis requires two steps. Gentry Gallery, Inc. v. Berklene Corp., 134 F.3d 1473, 1476, 45 USPQ2d 1498, 1500 (Fed. Cir. 1998). “First, the claim must be properly construed to determine its scope and meaning. Second, the claim as properly construed must be compared to the accused device or process.” Id. (quoting Carroll Touch, Inc. v. Electro Mech. Sys., Inc., 15 F.3d 1573, 1576, 27 USPQ2d 1836, 1839 (Fed. Cir. 1993)). Claim construction is a matter of law that is reviewed without deference. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456, 46 USPQ2d 1169, 1174 (Fed. Cir. 1998) (en banc). Determination of infringement, whether literal or under the doctrine of equivalents, is a question of fact. Bai v. L & L Wings, Inc., 160 F.3d 1350, 1353, 48 USPQ2d 1674, 1676 (Fed. Cir. 1998).

II. '041 Patent

We first address the decision of the district court regarding PTI's '041 patent. The district court construed the language of claim 1 “net supporters made of PFA, FEP or EPE” to mean that the “net supporters must be made wholly of PFA, FEP or EPE, and cannot include any other fluorocarbon resin (e.g., PTFE) therein” and “cannot (1) be a mixture of two or more of the three materials specified or (2) contain a material other than PFA, FEP or EPE, e.g., [they cannot contain] PTFE.” Pall I, slip op. at 14-15. PTI does not challenge the claim construction on this appeal, and we agree with the district court's claim construction requiring the net supporters to be made of 100% of one of the recited thermoplastic fluorocarbon resins.

Turning to infringement, the accused infringing device of Pall is an all-fluoropolymer filter with a PTFE membrane having support and drainage layers on each side of the membrane. These support and drainage layers, which correspond to the “net supporters” of the '041 patent, contain at least 60% PTFE. Because the net supporters require the net supporters to be made wholly out of PFA, FEP or EPE, the support and drainage layers cannot literally infringe the net supporters of claim 1 of the '041 patent. In its briefs, PTI only argued that the Pall filters infringe

under the doctrine of equivalents, apparently conceding that the Pall filters do not literally infringe.

Both parties now agree that our decision in Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 234 F.3d 558, 56 USPQ2d 1865 (Fed. Cir. 2000) (en banc), cert. granted, 69 U.S.L.W. 3673 (U.S. June 18, 2001) (No. 00-1543), issued after the submission of briefs, forecloses resort to the doctrine of equivalents as to the net supporters limitation. Here the patentee originally broadly claimed “net supporters made of thermoplastic fluorocarbon resin” but later amended the claim in light of a prior art rejection to recite “net supporters made of tetrafluoroethylene/ perfluoroalkyl vinyl ether copolymer resin (PFA), tetrafluoroethylene/hexa-fluoropropylene copolymer resin (FEP) or tetrafluoroethylene/hexafluoropropylene/ perfluoroalkyl vinyl ether terpolymer resin (EPE).” Moreover, the accompanying remarks by PTI state: “All of the constituents of the filter element now claimed are not the same. The membrane material is PTFE but the net, seal, etc. are not” This narrowing of the net supporters limitation of claim 1 was clearly made for reasons related to patentability -- to avoid a prior art rejection made by the patent examiner.

Pursuant to Festo, application of the doctrine of equivalents is completely barred for a claim limitation that has been narrowed for reasons related to patentability. Id. at 574, 56 USPQ2d at 1877. Therefore, the doctrine of equivalents is not available as to the net supporters limitation of claim 1.

III. '465 Patent

Pall, the assignee of the '465 patent, argues that the district court improperly construed claims 1 and 9. On this appeal, PTI apparently concedes that the district court's claim construction was erroneous in requiring a unitary structure for the end caps. We agree that the claims do not require a unitary structure.

As previously noted, the district court construed claim 1 to require that “each claimed ‘impervious

end cap' cannot comprise two separate components, wherein the first component is welded to one end of an unsealed filter arrangement to provide a liquid-tight sealed end, and the second component is welded onto the previously-formed sealed end." Pall I, slip op. at 9-10. Before this court, Pall urges that "[t]he district court erred when it construed the claim element 'impervious fluoropolymeric end caps' to encompass only one-piece end caps, and excluded end caps formed by welding two components together."

We look first to the ordinary meaning of the disputed claim language. Claim 1 recites "first and second impervious fluoropolymeric end caps." In claim 1, the first end cap is further described as "including a cylindrical protrusion projecting away from the filter arrangement and containing means defining a central aperture communicating with the center of the filter arrangement." Contrary to the interpretation of the district court, the language of the claims does not indicate that the first end cap must be a unitary structure that cannot comprise two separate components that are welded together. Instead, the claim merely describes the first end cap as having a particular shape and containing an aperture. The ordinary meaning does not require that each of the first and second end caps be a unitary structure that cannot be made of two or more separate elements. Likewise, the ordinary meaning does not require that each end cap be a single component that is applied in a single step.

Nor is there anything in the specification that suggests that the drafter intended to use the claim language in a manner different than its ordinary meaning. DeMarini Sports, Inc., v. Worth, Inc., 239 F.3d 1314, 1323, 57 USPQ2d 1889, 1893 (Fed. Cir. 2001) ("[T]he specification is reviewed to determine whether the patentee used terms in a manner inconsistent with their ordinary meaning."); Vitronics Corp. v. Conceptor, Inc., 90 F.3d 1576, 1582, 39 USPQ2d 1573, 1577 (Fed. Cir. 1996) ("[I]t is always necessary to review the specification to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning."). The specification here does not define any of the disputed claim language in a manner inconsistent

with its ordinary meaning.

PTI concedes that its accused devices would infringe under the claim construction so far described above, but argues that the prosecution history requires a different construction of the claims. We have repeatedly held that, in addition to the specification, the prosecution history must be considered in construing claims. Biovail Corp. Int'l v. Andrx Pharm., Inc., 239 F.3d 1297, 1301, 57 USPQ2d 1813, 1816 (Fed. Cir. 2001) (“[W]e review both the specification and the applicable prosecution history to determine whether the patentee defined claim terminology in a manner inconsistent with its ordinary meaning.”); Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc., 222 F.3d 951, 955, 55 USPQ2d 1487, 1490 (Fed. Cir. 2000) (“The court, therefore, must examine a patent’s specification and prosecution history to determine whether the patentee has given the term an unconventional meaning.”); Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576, 34 USPQ2d 1673, 1676 (Fed. Cir. 1995) (“Arguments and amendments made during the prosecution of a patent application and other aspects of the prosecution history, as well as the specification and other claims, must be examined to determine the meaning of terms in the claims.”).

PTI asserts that the patent prosecution history forecloses any interpretation of the claims that would include the subject matter of the accused devices, and that this court should not now interpret the claims to include the accused devices.

On March 4, 1986, during the prosecution of the '465 patent, Pall submitted an Information Disclosure Statement (“IDS”) to the U.S. Patent and Trademark Office that listed a number of attached references, including a one-page brochure by HR Textron and PTI entitled “Fluoroflow™.” The one-page brochure describes a filter cartridge called the Fluoroflow™ which is the trademark of a device manufactured by PTI.

The IDS and references were filed simultaneously with an amendment after final rejection. Pall’s

explanation accompanying the amendment included a concise statement of relevance for each reference as required by the information disclosure rules in effect at the time, 37 C.F.R. § 1.98 (1986). The concise statement of relevance for the brochure stated that: “The commercial literature of H.R. Textron describes an all-Teflon filter element having end caps, an outer support sleeve, upstream and downstream membrane supports, filter media, a core, and O-rings.” The accompanying explanation also described the relevance of each of the other references, and concluded:

None of these materials [including the brochure] disclose a filter cartridge or assembly as claimed in independent claims 1, 9 or 13 of the referenced application. For example, none of them disclose a filter cartridge of assembly having a cylindrical protrusion projecting away from the filter arrangement and a sealing ring cooperatively arranged with the first end cap, at least the external surface of said sealing ring comprising a fluoropolymeric material.

(emphasis added).

PTI asserts that Pall’s statement during prosecution of the ’465 patent forecloses any interpretation of the claims that would include the PTI filter cartridges because these cartridges were described in the brochure. As discussed above, statements made during the prosecution history are used to interpret the scope and meaning of the patent claims. Alpex Computer Corp. v. Nintendo Co., 102 F.3d 1214, 1220, 40 USPQ2d 1667, 1671 (Fed. Cir. 1996); Southwall, 54 F.3d at 1576, 34 USPQ2d at 1676; Biodex Corp. v. Loredan Biomedical, Inc., 946 F.2d 850, 862-63, 20 USPQ2d 1252, 1262 (Fed. Cir. 1991). Statements made during prosecution that may be used in claim construction include statements that accompany an Information Disclosure Statement. Ekchian v. Home Depot, Inc., 104 F.3d 1299, 1304, 41 USPQ2d 1364, 1368 (Fed. Cir. 1997) (holding that “statements made in an IDS can be the basis for a court to interpret the scope of the claims of a granted patent”); Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452, 227 USPQ 293, 296 (Fed. Cir. 1985).

Even where the ordinary meaning of the claim is clear, it is well-established that “[t]he prosecution

history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution.” Southwall, 54 F.3d at 1576, 34 USPQ2d at 1676; see also Hockerson-Halberstadt, 222 F.3d at 956, 55 USPQ2d at 1491 (“Review of the prosecution history . . . reveals that the inventor disclaimed a particular interpretation of groove, thereby modifying the term’s ordinary meaning.”); Ekchian, 104 F.3d at 1304, 41 USPQ2d at 1368 (in the context of claim construction, stating that “by distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover, he is by implication surrendering such protection”); Biodex, 946 F.2d at 863, 20 USPQ2d at 1262 (in the context of claim construction, holding that “a particular interpretation of a claim term may have been disclaimed by the inventor during prosecution,” and that “[a] disclaimer could be directed to interpretation.”). Thus, this court has endorsed narrowing the interpretation of the claim to be consistent with a narrow claim scope urged by the applicant during the prosecution of the patent. See Standard Oil, 774 F.2d at 452-53, 227 USPQ at 296 (noting that “the prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance” and that “[b]y making this disclaimer or concession, [the patentee] surrendered any interpretation of its claim that would include [the subject matter urged to be outside of the scope of the claims]”). Cf. Scimed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1341, 58 USPQ2d 1059, 1062-63 (Fed. Cir. 2001) (noting that even if a claim is broad, the specification may make clear that the invention does not encompass a feature that would be otherwise within the scope of the claim). This narrowing claim interpretation will be adopted if the accused infringer can demonstrate that the patentee “defined” the claim as “excluding” a broader interpretation “with reasonable clarity and deliberateness.” N. Telecom Ltd. v. Samsung Elecs. Co., 215 F.3d 1281, 1294-95, 55 USPQ2d 1065, 1075 (Fed. Cir. 2000).

The public notice function of patents requires that a patentee be prevented from expressly stating during prosecution that the claims do not cover a particular device and then later suing for

infringement by that same device. Allowing such a suit would be unfair to the public, particularly the manufacturer of the accused device, which was entitled to rely on the surrender of claimed subject matter made in the prosecution history and contained in the file wrapper. Hockerson-Halberstadt, 222 F.3d at 957, 55 USPQ2d at 1491 (stating that, in the context of claim construction, “the prosecution history constitutes a public record of the patentee’s representations concerning the scope and the meaning of the claims, and competitors are entitled to rely on those representations when ascertaining the degree of lawful conduct Were we to accept [the accused infringer’s] position, we would undercut the public’s reliance on a statement that was in the public record and upon which reasonable competitors formed their business strategies”) (internal citations omitted); Vitronics, 90 F.3d at 1583, 39 USPQ2d at 1577 (in the context of claim construction, stating that “[t]he claims, specification, and file history . . . constitute the public record of the patentee’s claim, a record on which the public is entitled to rely”). We accordingly must construe claims “to exclude any interpretation that was disclaimed during prosecution.” Southwall, 54 F.3d at 1576; 34 USPQ2d at 1676.

In claim construction, a claim is interpreted from the perspective of one of ordinary skill in the art. Hockerson-Halberstadt, 222 F.3d at 955, 55 USPQ2d at 1490; K-2 Corp. v. Salomon S.A., 191 F.3d 1356, 1365, 52 USPQ2d 1001, 1006 (Fed. Cir. 1999). Cf. In re Cortright, 165 F.3d 1353, 1358, 49 USPQ2d 1464, 1467 (Fed. Cir. 1999) (using terms “one of ordinary skill in the art” interchangeably with “those skilled in the art”); Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1475, 46 USPQ2d 1169, 1191 (Fed. Cir. 1998) (en banc) (using terms “one of ordinary skill in the art” interchangeably with “one of skill in the art”).

Here in the course of prosecution, Pall stated that the claims did not cover the subject matter disclosed in the brochure, thereby excluding any claim interpretation that includes that subject matter. See Southwall, 54 F.3d at 1576, 34 USPQ2d at 1676. The question then is -- what did the brochure disclose? We must determine what one of ordinary skill in the art would believe to have

been disclosed by the brochure. The brochure provides general information about the design of a Fluoroflow™ filter. The brochure states: “Fluoroflow™ is the first all-Teflon filter cartridge using Gortex as a filter media.” The brochure then describes the material of construction for the end caps, outer support sleeve, upstream and downstream membrane supports, core, o-rings, and filter media. Under a section entitled “Cartridge Style” the brochure states: “Presently available with 222 o-rings.” The brochure does not contain any drawings or photographs of the Fluoroflow™ filter cartridge.

Based upon the face of the brochure, it is unclear to us whether the filter cartridge disclosed in the brochure is the same or substantially identical to the accused device. More importantly, it is unclear whether one of ordinary skill in the art would believe the filter cartridge in the brochure includes all of the recited claim limitations, particularly the cylindrical protrusion and sealing ring cooperatively arranged with the first end cap.

Given the statement by Pall in the accompanying explanation in the prosecution history that none of the references (including the brochure) discloses “a filter cartridge . . . having a cylindrical protrusion . . . and a sealing ring,” which are specifically recited in claim 1, it may be difficult for PTI to prove a disclaimer by Pall of any interpretation that includes the accused device. However, the district court did not address the issue of what one skilled in the art would believe to have been excluded after reviewing the prosecution history as a whole, including the brochure and the statements of the applicant. We decline to affirm or reverse the district court’s grant of summary judgment of non-infringement on a ground not addressed by the district court; therefore, a remand is necessary. On remand both parties should be given a further opportunity to submit evidence directed to the extent of the disclosure of the brochure to one of ordinary skill in the art. The determination of the scope of the exclusion of subject matter during prosecution for purposes of claim construction is a matter of law to be made after examination of the appropriate evidence.

The district court remains free, of course, to entertain a new motion for summary judgment on

these issues.

CONCLUSION

Therefore, we affirm the district court's decision on the '041 patent, but vacate and remand to the district court for further proceedings on the '465 patent consistent with this opinion.

AFFIRMED-IN-PART, VACATED-IN-PART, AND REMANDED.

COSTS

No costs.