

NOTE: Pursuant to Fed. Cir. R. 47.6, this disposition is not citable as precedent. It is a public record. This disposition will appear in tables published periodically.

United States Court of Appeals for the Federal Circuit

00-1543

KX INDUSTRIES, L.P. and KOSLOW TECHNOLOGIES CORPORATION,

Plaintiffs-Appellants,

v.

PUR WATER PURIFICATION PRODUCTS, INC.,

Defendant-Appellee.

DECIDED: August 10, 2001

Before RADER, GAJARSA, and LINN, Circuit Judges.

LINN, Circuit Judge.

KX Industries, L.P. and Koslow Technologies Corp. (collectively "KXI") appeal from the decision of the United States District Court for the District of Delaware, which granted summary judgment in favor of PUR Water Purification, Products, Inc. ("PUR"), holding that PUR does not infringe claim 94 of U.S. Patent No. 5,019,311 ("the '311 patent"). KX Indus., L.P. v PUR Water Purif. Prods., Inc., No. 99-275 (D. Del. Aug. 9, 2000). The district court properly held that no reasonable jury could find that PUR infringed these claims either literally or under the doctrine of equivalents. Thus, the district court's grant of summary judgment of no infringement is affirmed.

BACKGROUND

The technology of the '311 patent relates to preparation of composite materials used in water filtration, e.g., carbon block filters. These composite materials can be manufactured using a variety of techniques, such as extrusion, compression molding, and roll compaction.

The only independent claim that is at issue in the '311 patent is claim 94. That claim sets forth a four-step process for producing either a continuous web matrix ("cwm") composite material of binder particles and primary particles or a forced point

bond ("fpb") composite material of binder particles and primary particles. The particular limitations of claim 94 in dispute are "heating said substantially uniform mixture, in the absence of pressure or shear sufficient to convert the binder particles . . . ," and "thereafter applying pressure and shear to the heated mixture to substantially immediately convert at least a portion of the binder material particles into a substantially continuous webbing structure or to cause forced point-bonding of the particles of the primary material by the binder material"

PUR manufactures carbon blocks using a compression molding technique. PUR's process involves combining carbon particles with microfine polyolefin powder particles, heating the mixture in a pressurized cylinder wherein the pressure remains constant through the heating process and is at a level from 95 psi to 140 psi.

PUR moved for summary judgment of noninfringement contending, among other things, that the claimed process requires, for a compression molding process, heating in the absence of pressure or shear. In addition, PUR contended that for all techniques of manufacturing the composite material encompassed by the claim, the applied pressure must be greater than 400 psi after the heating step. PUR notes that it does not perform either of these steps in its compression molding process and thus argues that it cannot be found to infringe claim 94.

KXI filed a cross-motion for summary judgment of infringement contending among other things that the heating step of the claimed process does not need to be performed in the absence of pressure or shear. According to KXI, the process only requires the absence of sufficient pressure and shear to convert the binder material until after the mixture has been heated above the softening temperature of the binder. In addition, KXI contended that to the extent that the pressure step is limited numerically, it is only limited to pressures above 40 psi not 400 psi. Based on the foregoing interpretation, KXI asserts that PUR's process must be found to infringe claim 94.

In its decision concluding that PUR does not infringe claim 94, the district court applied the doctrine of disclaimer to determine that for a compression molding process, the heating limitation is limited to "no pressure being applied." That disclaimer was discerned from the following portion of the specification under the heading "B. Compression Molding:"

During heating, no pressure is applied and no effort is made to consolidate the powder. The powder must be at the desired temperature before pressure and shear are applied.

'311 patent, col. 18, l. 67-col. 19, l. 2.

In addition, as for the applying pressure limitation, the district court again applied the doctrine of disclaimer to determine that the pressure applied must be greater than 400 psi. That disclaimer was discerned from statements in the specification under the heading "II. Background Art" that distinguish the invention from United States Patent No. 4,664,683 (the "Degen patent") and from statements in the Degen patent itself. These statements are as follows:

The levels of compression disclosed by Degen et al. are exceedingly low, 0.3-10 psi (0.21-0.703 kg/cm²) most preferred maximum 40 psi (2.91 kg/cm²). Accordingly, it describes process conditions well outside the range of compression utilized in the present invention, which would be 400-1000 psi (28.1-70.31 kg/cm²) for granular materials (i.e. 10-50 mesh) and approximately 8,000 psi (562.48 kg/cm²) or more for powders (typically, 100-600 mesh). Without such higher pressures, the binder resins are not activated and the novel structures produced by the current invention are not obtained.

'311 patent, col. 2, ll. 40-51.

Pressures in the range of up to the crush strength of the carbon, which is about 400 psi, are suitable although, from a practical perspective, pressures up to about 40 psi are preferred and from about 0.3 to about 10 psi are most preferred.

The Degen patent, col. 10, ll. 10-14.

Based on its construction, and the undisputed fact that in PUR's process, PUR applies pressure below 400 psi and applies some pressure and shear during heating, the district court determined that no reasonable jury could conclude that PUR's process literally infringes claim 94. Moreover, the district court determined that these disclaimers precluded KXI from asserting that PUR's process infringes under the doctrine of equivalents.

KXI timely appealed from the final judgment entered by the district court in favor of PUR. We have jurisdiction under 28 U.S.C. § 1295(a)(1)(1994).

DISCUSSION

I. Standard of Review

We review a district court's grant of summary judgment de novo. Ethicon Endo-Surgery, Inc. v.

United States Surgical Corp., 149 F.3d 1309, 1315, 47 USPQ2d 1272, 1275 (Fed. Cir. 1998). However, in reviewing a denial of a motion for summary judgment, we give deference to the trial court, and "will not disturb the trial court's denial of summary judgment unless we find that the court has indeed abused its discretion." Suntiger, Inc. v. Scientific Research Funding Group, 189 F.3d 1327, 1333, 51 USPQ2d 1811, 1815 (Fed. Cir. 1999). When both parties move for summary judgment, the court must evaluate each motion on its own merits, resolving all reasonable inferences against the party whose motion is under consideration. McKay v. United States, 199 F.3d 1376, 1380 (Fed. Cir. 1999).

Summary judgment is appropriate only when there are no genuine issues of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c). "In determining whether there is a genuine issue of material fact, the evidence must be viewed in the light most favorable to the party opposing the motion, with doubts resolved in favor of the opponent." Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc., 145 F.3d 1303, 1307, 46 USPQ2d 1752, 1755 (Fed. Cir. 1998). If there are no material facts in dispute precluding summary judgment, "our task is to determine whether the judgment granted is correct as a matter of law." Prochorenko v. United States, 243 F.3d 1359, 1362 (Fed. Cir. 2001).

A determination of infringement requires a two-step analysis. "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." Carroll Touch, Inc. v. Electro Mech. Sys., Inc., 15 F.3d 1573, 1576, 27 USPQ2d 1836, 1839 (Fed. Cir. 1993). "In order for a court to find infringement, the plaintiff must show the presence of every element or its substantial equivalent in the accused device." Wolverine World Wide, Inc. v. Nike, Inc., 38 F.3d 1192, 1199, 32 USPQ2d 1338, 1341 (Fed. Cir. 1994). Claim construction is an issue of law, Markman v. Westview Instruments, Inc., 52 F.3d 967, 970-71, 34 USPQ2d 1321, 1322 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996), that we review de novo. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456, 46 USPQ2d 1169, 1172 (Fed. Cir. 1998) (en banc). The 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. Analysis

A. Claim Construction

"[A]ll express representations made by or on behalf of the applicant to the examiner to induce a patent grant," limit the interpretation of the claims "so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance." Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452, 227 USPQ 293, 296 (Fed. Cir. 1985); Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc., 222 F.3d 951, 955, 55 USPQ2d 1487, 1490 (Fed. Cir. 2000) ("Review of the prosecution history . . . reveals that the inventor disclaimed a particular interpretation of groove, thereby modifying the term's ordinary meaning."); Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576, 34 USPQ2d 1673, 1676 (Fed. Cir. 1995) ("The prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution."). Furthermore, where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question. SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys.,

Inc., 242 F.3d 1337, 1341, 58 USPQ2d 1059, (Fed. Cir. 2001); Cultor Corp. v. A.E. Staley Mfg. Co., 224 F.3d 1328, 1331, 56 USPQ2d 1208, 1210 (Fed. Cir. 2000) ("Claims are not correctly construed to cover what was expressly disclaimed."). But any limitation of the meaning attributed to the claim language based on such disclaimer must be shown in the intrinsic record with reasonable clarity and deliberateness. Northern Telecom Ltd. v. Samsung Electronics Co., 215 F.3d 1281,1294, 55 USPQ2d 1065, 1075 (Fed. Cir. 2000).

In view of the foregoing, express statements or arguments of limitation made in an information disclosure statement ("IDS"), in discussions with the examiner, or in the specification of the patent itself are all relevant in determining whether the express terms of the claim must be limited to exclude disclaimed subject matter. So, just as an argument contained in an IDS that purports to distinguish an invention from the prior art may affect the scope of the claims of a granted patent, Ekchian v. Home Depot, Inc., 104 F.3d 1299, 1304, 41 USPQ2d 1364, 1368 (Fed. Cir. 1997), so may a clear statement distinguishing the invention from the prior art that is in the specification itself. See Pall Corp. v. PTI Techs., Inc., Nos. 00-1203 and -1215, slip op. at 14-15 (Fed. Cir. Aug. 3, 2001).

In this case, the inventor distinguished his invention from Degen as a kind of preemptive strike against a potential rejection. It is not clear that the assertions made were necessary for allowance of the claims. However, whether the limiting assertions made were necessary for allowance of the claims is not dispositive as to whether a patentee has disclaimed certain subject matter. Cf. Texas Instruments Inc. v. United States Int'l Trade Comm'n, 988 F.2d 1165, 1174, 26 USPQ2d 1018, 1025 (Fed. Cir. 1993) (noting in the context of prosecution history estoppel that unmistakable assertions made during prosecution in support of patentability, whether or not actually required to secure allowance of the claim, may operate to preclude the patentee from asserting equivalency). Rather, what is determinative is whether the patentee has defined a claim term as excluding a broader interpretation with reasonable clarity and deliberateness. See Pall, slip op. at 15.

We conclude that the inventor made an unambiguous assertion as to the minimum compression level needed to activate the binders in the claimed invention so as to obtain the novel cwm and fpb composite materials. In other words, the inventor, with reasonable clarity and deliberateness, articulated that "400-1000 psi (28.1-70.31 kg/cm²) for granular materials (i.e. 10-50 mesh) and approximately 8,000 psi (562.48 kg/cm²) or more for powders (typically, 100-600 mesh)" is the necessary range of compression for obtaining the claimed composite materials. '311 patent, col. 2, ll. 45-47. Thus, despite the fact that this range is not set forth in the claim itself, the intrinsic record evinces with reasonable clarity and deliberateness that the inventor clearly disavowed the particular feature of pressures not within "400-1000 psi (28.1-70.31 kg/cm²) for granular materials (i.e. 10-50 mesh) and approximately 8,000 psi (562.48 kg/cm²) or more for powders (typically, 100-600 mesh)." Id.

Admittedly, there are two references in the specification to broad pressure ranges each using 50 psi as the lower limit. '311 patent, col. 6, ll. 30-36 ("The major variation in process conditions is the use of either high (generally greater than 4000 psi . . .) or low (generally greater than 50 psi . . . but less than 4000 psi."); id. at col. 12, ll. 41-43 ("the basic requirements [of the process] include . . . [placing] the mixture . . . under sufficient applied pressure, generally at least about 50 psi . . ."). However, these two general references are insufficient to convince us that the inventor did not clearly disavow operating pressures for the invention of less than 400 psi. That is because the inventor stated unambiguously and without qualification that a minimum of 400 psi is necessary to activate the binder resins, and such

activation is a necessary step in obtaining the novel cwm and fpb composite materials with the claimed process. Id. at col. 2, ll. 48-51 ("without such higher pressures [i.e., 400 psi –1000 psi for granular materials and 8,000 psi or more for powder materials] the binder resins are not activated and the novel structures produced by the current invention are not obtained." (emphasis added)). The fact that the inventor chose to express the minimum pressure level needed for activation in the Background section makes it no less important in determining what the inventor deemed necessary to the claimed process to achieve his novel cwm and fpb composite materials.

Moreover, the first reference to 50 psi in the written description is made in the context of generally pointing out the process conditions that generically distinguish the ability to obtain a cwm composite material from the ability to obtain an fpb composite material. Id. at col. 6, ll. 30-36 ("The variations in the process conditions described here result in two alternative structures that are distinctly different internally . . . the major variation . . . [being] the use of either high (generally greater than 4000 psi . . .) or low (generally greater than 50 psi . . . but less than 4000 psi.) pressure to accomplish the process . . ."). The second reference to 50 psi is immediately followed by the added condition that "the applied pressure must be sufficient to 'activate' the binder" Id. col. 12, ll. 50-52. Thus, the two general statements in the written description regarding the use of pressures within broad ranges starting from above 50 psi do not make the inventor's clear and deliberate disavowal unambiguous. Rather, these statements, in view of the clear statement by the inventor of what he deems necessary for activation of the binder resins and, thus, the operability of the claimed process to achieve his novel cwm and fpb composite materials structures, can only be deemed to be incorrect.

We need not address the district court's construction of the heating limitation because, as will be discussed below, comparison of the PUR process to claim 94 in view of the interpretation of the pressure step is dispositive of the infringement issues on appeal.

B. Infringement

After claim construction, the next step in an infringement analysis is comparing the properly construed claims with the allegedly infringing devices. Kemco Sales, Inc. v. Control Papers Co., 208 F.3d 1352, 1360, 54 USPQ2d 1308, 1312 (Fed. Cir. 2000). This comparison is a question of fact. Id. Thus, if we agree with the district court that there are no genuine issues of material fact, and the movant is entitled to judgment as a matter of law, we can affirm the district court's grant of summary judgment. Fed. R. Civ. P. 56(c); Celotex, 477 U.S. at 322; see Vehicular Techs. Corp. v. Titan Wheel Int'l, Inc., 212 F.3d 1377, 1381, 54 USPQ2d 1841, 1843 (Fed. Cir. 2000) (holding that a fact issue is not in genuine dispute if a reasonable jury could only find in favor of the moving party).

Literal infringement of a claim occurs when every limitation recited in the claim appears in the accused device, i.e., when "the properly construed claim reads on the accused device exactly." Amhil Enters., Ltd. v. Wawa, Inc., 81 F.3d 1554, 1562, 38 USPQ2d 1471, 1476 (Fed. Cir. 1996). Infringement under the doctrine of equivalents requires that the accused product contain each limitation of the claim or its equivalent. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 40 (1997) (noting that because each limitation contained in a patent claim is material to defining the scope of the patented invention, a doctrine of equivalents analysis must be applied to individual claim limitations, not to the invention as a whole). An element in the accused product is equivalent to a claim limitation if the differences between the two are "insubstantial" to one of ordinary skill in the art. See id.

It is undisputed that the PUR process employs pressures well below 400 psi as required by claim 94, i.e., ninety-five psi to 140 psi. Thus, the PUR process does not literally infringe claim 94.

Moreover, as explained above, the '311 patent makes it clear that without pressures of 400 psi or more the binder resins are not activated and the novel structures are not obtained. Consequently, the much lower pressures employed by PUR cannot, as a matter of law, be insubstantially different from 400 psi. Therefore, the PUR process using such pressures cannot infringe claim 94 under the doctrine of equivalents.

For the foregoing reasons, we affirm the district court's conclusion on summary judgment that PUR's process does not infringe claim 94, literally or under the doctrine of equivalents.

FOOTNOTES:

[1] 94. A method of forming a composite material which comprises:

providing a quantity of first particles of a binder material, said first particles having diameters between about 0.1 and about 150 micrometers;

providing a quantity of second particles of a primary material having a softening temperature substantially greater than the softening temperature of said binder material, said second particles having diameters between about 0.1 and about 3,000 micrometers;

combining the first and second quantities of particles in a substantially uniform mixture wherein said binder material is present in an amount of at least about 3% by weight of the mixture;

heating said substantially uniform mixture, in the absence of pressure or shear sufficient to convert the binder particles, to a temperature substantially above the softening temperature of said binder material but to a temperature less than the softening temperature of said primary material;

thereafter applying pressure and shear to the heated mixture sufficient to substantially immediately convert at least a portion of the binder material particles into a substantially continuous webbing structure or cause forced point-bonding of the particles of the primary material by the binder material; and

substantially immediately after formation of said binder particles into a webbing structure or forced point-bonds, rapidly cooling said mixture to below the melting point of the binder material to retain said converted binder material in its continuous webbing structure or forced point-bonded condition to produce the composite material.