

## United States Court of Appeals for the Federal Circuit

01-1043, -1071

EPCON GAS SYSTEMS, INC. and NORMAN S. LOREN,

Plaintiffs-Appellants,

v.

BAUER COMPRESSORS, INC.,

Defendant-Cross  
Appellant.

Gerald E. McGlynn, III, Bliss McGlynn, P.C., of Troy, Michigan, argued for plaintiffs-appellants.

John A. Artz, Artz & Artz P.C., of Southfield, Michigan, argued for defendant-cross appellant. With him on the brief were John S. Artz and Robert P. Renke.

Appealed from: U.S. District Court for the Eastern District of Michigan

Judge Arthur J. Tarnow

## United States Court of Appeals for the Federal Circuit

01-1043, -1071

EPCON GAS SYSTEMS, INC. and NORMAN S. LOREN,

Plaintiffs-Appellants,

v.

BAUER COMPRESSORS, INC.,

Defendant-Cross Appellant.

---

DECIDED: February 1, 2002

---

Before MAYER, Chief Judge, CLEVINGER, and LINN, Circuit Judges.

LINN, Circuit Judge.

Epcon Gas Systems, Inc. and Norman S. Loren (“Epcon”) appeal the decision of the district court granting summary judgment of non-infringement in favor of Bauer Compressors, Inc. (“Bauer”). Because the district court erred in its construction of claim 2 and summary judgment of non-infringement was improperly granted as a result, we reverse the grant of summary judgment and remand for trial. We affirm the denial of Bauer’s motion to declare this case exceptional.

## BACKGROUND

U.S. Patent No. 5,118,455 (“the ‘455 patent”) issued on June 2, 1992 with claims directed to a method and apparatus for providing gas assistance to an injection molding process. Claims 2 and 16 have been asserted by Epcon, the exclusive licensee of the ‘455 patent, against Bauer, its competitor in the injection molding accessory business.

Claim 2 recites a method:

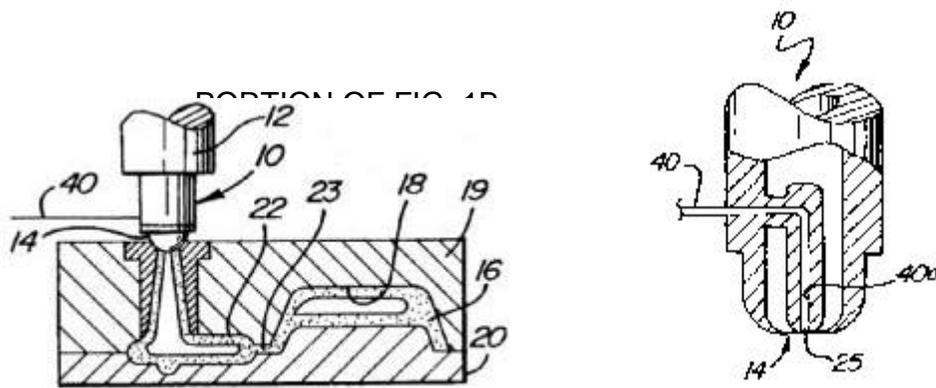
2. A method of providing gas assistance to a resin injection molding process of the type in which hot resin is injected into a mold, gas is injected into the mold to displace a portion of the resin in the mold, the resin cools, the gas is vented and the mold is opened to remove the molded part, a supply of stored as [sic, gas] is provided, the gas is injected into the mold to displace the resin in the mold cavity at a pressure that is at all times during the gas injection cycle substantially below the pressure of the stored gas supply, the improvement wherein, following the initial injection of the gas into the mold and prior to the venting of the gas from the mold, the gas pressure within the mold is selectively increased, decreased, or held substantially constant depending upon the particular requirements of the molding process.

Claim 16 recites an apparatus:

16. An apparatus for providing gas assistance to a resin injection molding process of the type in which hot resin is injected into a mold cavity, gas is injected into the mold to displace a portion of the resin in the mold, the resin cools, the gas is vented and the mold is opened to remove the molded part, the improvement wherein a supply of stored gas is provided and the apparatus includes control means which are

operative to inject gas into the mold to fill out the mold cavity at a pressure that is at all times during the gas injection cycle substantially below the pressure of the stored gas supply and which are further operative, following the initial injection of gas into the mold and prior to the venting of the gas from the mold, to selectively increase the gas pressure within the mold, decrease the gas pressure within the mold, or maintain the gas pressure within the mold at a particular value.

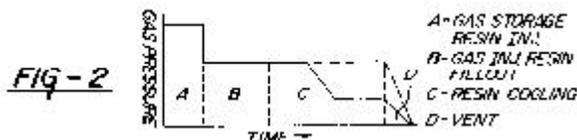
Figure 19 and a portion of Figure 1B from the '455 patent illustrate exemplary components of a gas-assisted injection molding apparatus:



In a molding machine 12, a quantity of hot resin 16 is injected through a first and second mold and a gate 23 into the mold cavity 18. The quantity of resin 16 injected is typically a "short shot," i.e., less than the amount required to totally fill the mold cavity 18.

Following the introduction of the resin 16 into the mold cavity 18, pressurized gas is introduced into the mold via a gas injection conduit 40 through a central nozzle aperture 25 (FIG. 19) to fill out the mold cavity 18 with resin 16. The invention of the '455 patent provides an improved method and apparatus for selectively controlling the pressure of the gas delivered to the mold.

Figure 2 illustrates one embodiment of the method of claim 2:



is pressure within the mold, following the initial

injection of gas into the mold and prior to the venting of the gas from the mold, to be selectively increased, decreased or held substantially constant, depending upon the particular requirements of the molding operation. In the exemplary gas pressure profile illustrated in FIG. 2, the gas is injected at a relatively constant pressure to displace the resin in the mold (A), then the gas pressure is reduced to a lower level (B), whereafter the gas pressure is selectively varied during the resin cooling cycle (C), and finally the gas pressure is vented (D) and the mold is opened to remove the molded part.

Gas assistance in injection molding is desirable because it forces the molten resin against the mold cavity in order to fill or “pack out” the mold during processing. This permits the formation of parts having a better surface finish and thinner walls, resulting in parts of lesser mass and reduced material cost. The preferred gas used in gas-assisted injection molding is nitrogen. ‘455 patent, col. 1, ll. 26-27.

In 1998, Bauer began making a “nitrogen control unit” (“NCU”) suitable for use in gas assisted injection molding and opened an office in Michigan to sell equipment to businesses practicing gas-assisted injection molding. The new Bauer office also sold gas supplies, including bottled nitrogen and nitrogen generators/compressors.

Epcon filed suit for infringement in the Eastern District of Michigan alleging, inter alia, that Bauer’s activities in connection with its NCU infringed claims 2 and 16 of the ‘455 patent. Bauer moved for summary judgment of non-infringement and invalidity of the ‘455 patent and to declare this case exceptional. The district court held a Markman hearing concerning the interpretation of claims 2 and 16 on February 28, 2000. On September 19, 2000, the district court construed the disputed limitations of claims 2 and 16, granted summary judgment of non-infringement in favor of Bauer, declined to rule on Bauer’s motion for summary judgment of invalidity, and denied the motion to declare the case exceptional.

Epcon appeals the grant of summary judgment of non-infringement, and Bauer cross-appeals the denial of its motion to declare the case exceptional. Although both parties stated in their briefs that our jurisdiction in this case is based on 28 U.S.C. § 1292(a)(1), we have jurisdiction of this case pursuant to 28 U.S.C. § 1295(a)(1).

## DISCUSSION

### Standard of Review

We review de novo a district court's grant of summary judgment. Conroy v. Reebok Int'l, Ltd., 14 F.3d 1570, 1575, 29 USPQ2d 1373, 1377 (Fed. Cir. 1994). Summary judgment is appropriate when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); Johnston v. IVAC Corp., 885 F.2d 1574, 1576-77, 12 USPQ2d 1382, 1383 (Fed. Cir. 1989). 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 nonmovant. Transmatic, Inc. v. Gulton Indus., Inc., 53 F.3d 1270, 1274, 35 USPQ2d 1373, 1377 (Fed. Cir. 1994).

Claim interpretation raises issues of law that this court reviews de novo. Markman v. Westview Instruments, Inc., 52 F.3d 967, 977, 34 USPQ2d 1321, 1329 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996). This court reviews factual findings by the district court for clear error. Molins PLC v. Textron, Inc., 48 F.3d 1172, 1186, 33 USPQ2d 1823, 1833 (Fed. Cir. 1995). If these factual underpinnings withstand scrutiny, we review a determination as to awarding attorney fees, i.e., whether the award was appropriate and the amount reasonable, for abuse of discretion. Id.

## ANALYSIS

### I. Claim Construction

The district court found that both claims 2 and 16 were subject to § 112, paragraph 6 because

they are in “step plus function” and “means plus function” form, respectively. Epcon does not contest that the apparatus claim 16 includes a limitation in means plus function form (“control means”). However, Epcon argues that no limitations of claim 2 are in “step plus function” form and that the court erred in interpreting claim 2 according to § 112, paragraph 6.

Following the preamble and the transition, claim 2 recites:

following the initial injection of the gas into the mold and prior to the venting of the gas from the mold, the gas pressure within the mold is selectively increased, decreased, or held substantially constant depending upon the particular requirements of the molding process.

‘455 patent, col. 17, ll. 13-18. For a method claim, § 112, paragraph 6 is implicated only when steps plus function without acts are present. O.I. Corp. v. Tekmar Co. Inc., 115 F.3d 1576, 1583, 42 USPQ2d 1777, 1782 (Fed. Cir. 1997). Merely claiming a step by itself, or a series of steps, without recital of a function does not trigger the application of § 112, paragraph 6. Id. Furthermore, method claims that “parallel,” or have limitations similar to, apparatus claims admittedly subject to § 112, paragraph 6 are not necessarily subject to the requirements of § 112, paragraph 6. Id. “Each claim must be independently reviewed in order to determine if it is subject to the requirements of § 112, paragraph 6.” Id.

The district court erred in its finding that the limitations of claim 2 must be interpreted according to § 112, paragraph 6 consistently with claim 16, without independently evaluating application of § 112, paragraph 6 to claim 2. An independent evaluation of claim 2 shows that it is not subject to § 112, paragraph 6. The claim includes no words indicating “step plus function” form, such as “step for.” See Seal-Flex, Inc. v. Athletic Track & Court Constr., 172 F.3d 836, 850, 50 USPQ2d 1225, 1234 (Fed. Cir. 1999) (Rader, J., concurring). The claim recites a series of steps without the recital of function. As noted in O.I. Corp., a preamble statement of purpose does not necessarily supply a function for “step plus function” form. 115 F.3d at 1583, 42 USPQ2d at 1782. Claim 2 is a garden variety process claim. The district court erred in analyzing claim 2 according to § 112, paragraph 6.

Bauer argues that the preambles of claims 2 and 16 require that the accused device/method include a complete injection molding system. The district court disagreed, as do we. The preamble of a claim is not necessarily limiting. Applied Materials, Inc. v. Advanced Semiconductor Materials Am., Inc., 98 F.3d 1563, 1572-73, 40 USPQ2d 1481, 1488 (Fed. Cir. 1996); Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Jepson form allows a patentee to use the preamble to recite “elements or steps of the claimed invention which are conventional or known.” Kegel Co. v. AMF Bowling, Inc., 127 F.3d 1420, 1426, 44 USPQ2d 1123, 1127 (Fed. Cir. 1997) (quoting 37 C.F.R. § 1.75(e) (1996)). However, in Rowe v. Dror, this court stated that “[w]hen this form is employed, the claim preamble defines not only the context of the claimed invention, but also its scope.” 112 F.3d 473, 479, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997). According to Rowe and Kegel, the fact that the patentee has chosen the Jepson form of the claim evidences the intention “to use the preamble to define, in part, the structural elements of his claimed invention.” Id.; Kegel, 127 F.3d at 1426, 44 USPQ2d at 1127. Thus, the preamble is a limitation in a Jepson-type claim. See Pentec, Inc. v. Graphic Controls Corp., 776 F.2d 309, 315, 227 USPQ 766, 770 (Fed. Cir. 1985); 3 Donald S. Chisum, Chisum on Patents § 8.06[1][d] n.21 (Supp. 1999).

Although Epcon disputes that claims 2 and 16 of the ‘455 patent are in Jepson form, the prosecution history shows that Epcon acquiesced in the Examiner’s statement that the claims were Jepson claims. Epcon amended claim 16 to correctly put it in Jepson format, and initially presented claim 2 in correct Jepson format in the same amendment, stating, “[t]he herein amendments are believed to address all of the Examiner’s 35 USC 112 objections to the claims.” On this record, there can be no real debate that the claims are presented in Jepson format.

Because claims 2 and 16 are in Jepson format, the preamble helps define the scope of the invention. However, the claims recite an apparatus and method for “providing gas assistance to a

resin injection molding process,” not an apparatus and method for performing injection molding. Thus, the district court was correct in not restricting the claims to apparatuses and methods that perform complete injection molding processes.

We next turn to the district court’s construction of the claim terms: “supply of stored gas,” “substantially,” “venting,” and “control means.”

#### A. “Supply of Stored Gas”

The district court construed the phrase “a supply of stored gas is provided” to mean that such a supply of stored gas is an integral part of the claimed invention. Epcon argues that this phrase is part of the transition in both claims 2 and 16, and is therefore a non-limiting part of the environment for the claim. Epcon argues that the district court erred in finding that the gas supply is an “integrated” component of the apparatus of claim 16. In contrast, Bauer argues that the phrase is not part of the transition of either claim 2 or 16, and the phrase is properly limiting because the specification describes this claim limitation as “an important feature of the invention apparatus.”

Contrary to Epcon’s characterization, the district court did not find that the stored gas supply is an “integrated” component of the apparatus of claim 16. Instead, the district court found that the stored gas supply is an “integral” part of the claimed invention. The distinction is important.

Integral is defined to mean “[c]omponents that form a complete unit.” The Contractors’ Dictionary of Equipment, Tools and Techniques 315 (1st ed. 1995). Integrated is defined to mean “[a] type of design in which two or more basic components or functions are physically, as well as electrically, combined - usually on one chassis, such as an integrated amplifier.” Modern Dictionary of Electronics 381 (7th ed. 1999). “Integral” connotes that the stored gas supply is a component part of the claimed invention, as opposed to “integrated,” which connotes physical

combination. Thus, an infringing apparatus/method must have a stored gas supply as a component part, but it is not required that the gas supply be physically combined on one chassis with all other parts.

The specification of the '455 patent provides further support for our construction. The '455 patent specification states, “[t]he invention apparatus, broadly considered, includes a bulk supply system 24 . . . . Bulk supply system 24 comprises a bulk storage container 42 . . . [which] may comprise, for example, a commercial nitrogen bottle storing nitrogen at a nominal pressure.” ‘455 patent, col. 5, ll. 5-20. “In operation, nitrogen gas is delivered from the bulk supply 24 to the regulator 46 at a stored pressure.” Id. at col. 9, ll. 53-54. Thus, according to the intrinsic record the “supply of stored gas” is included in the “invention apparatus, broadly considered,” and operates with other components in the claimed method. Nothing in the intrinsic record requires that the supply of stored gas be physically combined on one chassis with the other components of the claimed method or apparatus.

The district court did not err in finding that the “supply of stored gas” is integral, or a component part of the claimed apparatus and process. In method claim 2, the phrase “a supply of stored gas is provided” appears in the preamble. In the apparatus claim 16, the phrase appears after the transition. Since both claims are in Jepson format, the phrase recites elements that define the scope of the claimed invention. See Kegel, 127 F.3d at 1426, 44 USPQ2d at 1127; Rowe, 112 F.3d at 479, 42 USPQ2d at 1553.

#### B. “Substantially”

The district court construed the term “substantially” in the claimed phrase “substantially below” to mean “to a considerable degree,” and further construed “considerable” to mean “large.” The district court did not attach specific values to the pressures compared in the claims using the phrase “substantially below,” but did find that pressure differentials between 6-11,000 psi,

including 8,000 psi, are “substantial” for purposes of the ‘455 patent.

Epcon argues that the district court erroneously imputed a quantitative meaning to the phrase “substantially below.” Epcon argues that the phrase should instead be interpreted to mean “essentially below.” Bauer argues that the phrase was added to distinguish over the prior art during prosecution, and the district court’s construction was correct.

The term “substantially” is used in claims 2 and 16 in two slightly different contexts, i.e., “substantially below,” and “substantially constant.” As noted by both parties, the same term or phrase should be interpreted consistently where it appears in claims of common ancestry. Elkay Mfg. Co. v. Ebco Mfg. Co., 192 F.3d 973, 980, 52 USPQ2d 1109, 1114 (Fed. Cir. 1999); Abtox, Inc. v. Exitron Corp., 131 F.3d 1009, 1010, 46 USPQ2d 1735, 1735-36 (Fed. Cir. 1997); Fonar Corp. v. Johnson & Johnson, 821 F.2d 627, 632, 3 USPQ2d 1109, 1113 (Fed. Cir. 1987). However, this case implicates the more precise statement of the axiom, i.e., “[a] word or phrase used consistently throughout a claim should be interpreted consistently.” Phonometrics, Inc. v. Northern Telecom Inc., 133 F.3d 1459, 1465, 45 USPQ2d 1421, 1426 (Fed. Cir. 1998) (emphasis added).

In this case, the term “substantially” was used in two contexts with a subtle but significant difference. The phrase “substantially constant” denotes language of approximation, while the phrase “substantially below” signifies language of magnitude, i.e., not insubstantial. Because the same term was used in a different manner in these two phrases, the word “substantially” should not necessarily be interpreted to have the same meaning in both phrases.

The district court correctly construed the phrase, “substantially below,” in light of relevant portions of the prosecution history. The prosecution history shows that the phrase was added to the claims during prosecution to distinguish the claimed invention over the prior art Baxi reference. It is unclear that “substantially below,” as opposed to merely “below,” was required to

distinguish the prior art. But in any event, Bauer is correct that this limitation was added to distinguish the prior art, and Epcon should be held to the phrase it chose. Also, Epcon's proposed construction "essentially below" would make little sense in context, where "essentially" could connote "above or below," and the prior art would appear to disallow such an interpretation. The district court did not err in construing the phrase "substantially below," as used in the context of the claims.

### C. "Venting"

The district court construed the phrase "prior to the venting of the gas from the mold" to require separate valves to perform the functions of selectively reducing the gas pressure in the mold and of venting the gas from the mold at the end of the molding process. All parties agree that "venting" means to exhaust the gas in the mold cavity until the pressure approximately equals atmospheric pressure. Bauer argues that the specification of the '455 patent discloses separate valves for selectively reducing versus venting. According to Bauer, because claims 2 and 16 are subject to § 112, paragraph 6, the scope of the claims should be limited to that disclosed in the specification. Epcon argues that venting can be accomplished using multiple valves or using the same valve for selective reduction of pressure, as in the accused device. Epcon argues that Bauer's construction would entail improperly reading language from the specification into the claims.

As noted, claim 2 is not properly construed as being subject to § 112, paragraph 6. Therefore, the fact that the specification discloses only embodiments having separate valves for venting versus selectively reducing pressure is not dispositive of the scope of claim 2.

Bauer argues that the decision in the interference proceeding involving the '463 patent included a finding that multiple valves are needed to practice the claimed method. Again, the same term or phrase should be interpreted consistently where it appears in claims of common ancestry. Elkay,

192 F.3d at 980, 52 USPQ2d at 1114; Abtox, 131 F.3d at 1010, 46 USPQ2d at 1735-36. However, this argument fails because method claim 1 of the '463 patent involved in the interference decision contains limitations significantly different from those of method claim 2 of the '455 patent. The interference decision found that “[a]n additional part of the control means--a pressure control valve or regulating relief valve--is needed to reduce the gas pressure to a third lower hold pressure and maintain the pressure at the lower hold pressure as required by the count in the interference.” The count of the interference is identical to method claim 1 of the '463 patent. However, method claim 1 of the '463 patent includes limitations not present in method claim 2 of the '455 patent, including the steps “the gas pressure is reduced to a third lower hold pressure as determined by said control means, the gas pressure is thereafter maintained by said control means substantially at said third lower hold pressure.” It is the limitation regarding the third lower hold pressure that necessitates the additional valve in practicing the method of claim 1 of the '463 patent. Because no such limitation appears in the claims at issue in this case, it would be improper to construe the method claim 2 of the '455 patent to require multiple valves on the basis of the interference decision.

The method of claim 2 does not mention structure by which the “venting” is to be performed. Thus, Epcon is correct that the district court improperly imported language from the specification into the claim.

#### D. “Control Means”

As contrasted with claim 2, the parties do not contest that claim 16 includes a limitation, the “control means,” that is properly subject to § 112, paragraph 6. Construction of a means plus function limitation requires identification of the function recited in the claim and a determination of what structures have been disclosed in the specification that correspond to the means for performing that function. Kemco Sales, Inc. v. Control Papers Co., Inc., 208 F.3d 1352, 1361, 54 USPQ2d 1308, 1313 (Fed. Cir. 2000). “[S]tructure disclosed in the specification is ‘corresponding’

structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.” B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419, 1424, 43 USPQ2d 1896, 1900 (Fed. Cir. 1997); see also Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1377, 58 USPQ2d 1801, 1807 (Fed. Cir. 2001) (“As a quid pro quo for the convenience of employing § 112, paragraph 6, Budde has a duty to clearly link or associate structure to the claimed function.”). A means plus function claim “shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112 (1994).

Regarding the claim 16 limitation “control means” admittedly in means plus function format, the functions performed by the control means of claim 16 include “to inject gas into the mold” and “to selectively increase the gas pressure within the mold, decrease the gas pressure within the mold, or maintain the gas pressure within the mold at a particular value.” The specification recites the following structure corresponding to the “control means:”

The invention apparatus, broadly considered, includes a bulk supply system 24; a booster system 26; a booster drive system 28; a high pressure storage system 30; a pressure control system 32; a supplemental gas storage system 34; a pilot operated gas system 36; an electrical control system 38; and a gas injection conduit 40. Apparatus components 24, 26, 28, 30, 32, 34, 36, 38, and 40 together comprise control means for selectively controlling the gas delivered to the mold with respect to pressure and time.

‘455 patent, col. 5, ll. 5-14. The specification describes the corresponding structure and clearly links that structure, including the bulk supply system 24, to the above-identified functions of claim 16. The district court thus correctly construed “control means” in claim 16 to cover each of the components that “together comprise control means for selectively controlling the gas delivered to the mold” as described in col. 5, lines 5-14, and equivalents thereof.

Epcon argues that only three components are required to perform the functions recited in the claims. However, the district court correctly pointed out that the three components identified by Epcon do not perform the function of delivering gas into the mold, as required by claim 16:

“control means which are operative to inject gas into the mold.” ‘455 patent, col. 18, ll. 4-5. The district court did not err in requiring that the “corresponding structure” include at least that structure necessary to perform each of the functions recited as being performed by the “control means” in claim 16.

In summary, the district court erred in construing method claim 2 as subject to § 112, paragraph 6. The district court also erred in construing the phrase “prior to the venting of the gas from the mold” to require separate valves for venting and selectively reducing pressure in method claim 2. On the other hand, the district court did not err in construing apparatus claim 16 according to § 112, paragraph 6. Moreover, the district court did not err in construing the phrases, “a supply of stored gas is provided,” “substantially below,” and “control means.”

## II. Evidence of Direct Infringement

The district court stated that Epcon “has no evidence that Bauer or any of its customers is using the Nitrogen Control Unit manufactured by Bauer in a manner that infringes the 455 Patent,” and “[t]his court determines that plaintiff has not produced evidence that the Bauer Nitrogen Control Unit (NCU) has actually been used by any of Bauer’s customers within the United States to provide gas assistance to an injection molding process.” The district court acknowledged that an employee of Bauer testified that Bauer had sold approximately one hundred NCUs to injection molding businesses, but it pointed out that Epcon failed to identify any specific firm using the NCU in an infringing manner.

It is well settled that there can be no inducement of infringement without direct infringement by some party. Met-Coil Sys. Corp. v. Korner Unlimited, Inc., 803 F.2d 684, 687, 231 USPQ 474, 477 (Fed. Cir. 1986). Upon a failure of proof of direct infringement, any claim of inducement of infringement also fails. Moleculon Research Corp. v. CBS, Inc., 872 F.2d 407, 410, 10 USPQ2d 1390, 1393 (Fed. Cir. 1989). A finding of contributory infringement likewise requires underlying

proof of direct infringement. Standard Havens Prods., Inc. v. Gencor Indus., Inc., 953 F.2d 1360, 1374, 21 USPQ2d 1321, 1332 (Fed. Cir. 1991).

Epcon argues that Bauer infringed the '455 patent by using the NCU in an infringing manner in demonstrations for customers. Bauer responds that it does not perform gas-assisted injection molding. Bauer also argues that it cannot infringe because its NCU does not have an integral supply of stored gas, and it uses one valve for both venting and selective reduction of pressure. Bauer also ascribes significance to the testimony of Epcon's president, Mr. Jon Erickson, that the complaint in this case was filed on the basis of, at least in part, "rumor."

Bauer is correct that, because the means plus function construction of claim 16 requires that an infringing apparatus contain "control means" not included in products sold by Bauer, the accused device was correctly found not to infringe claim 16. However, this does not end the inquiry. Pursuant to the correct construction of the claims, method claim 2 is not subject to § 112, paragraph 6, does not require separate valves or other elements not present in the Bauer products, and does not require a supply of stored gas formed as a single unit with the NCU.

The record shows that Epcon did provide evidence that Bauer performed demonstrations for several customers that may have included practicing the method of claim 2. Mr. Paul Dier testified that Bauer manufactured approximately ten NCUs in Norfolk, Virginia, offered to sell an NCU to Florida Custom Mold, and Bauer employees demonstrated the NCU to Florida Custom Mold employees in Florida. Mr. Dier also testified that Bauer sold an NCU, a nitrogen generator (a "supply of stored gas"), and other related equipment to Tri-Quest of Washington for use with injection molding equipment. Mr. Dier testified that Bauer's Plastic Technology Group sells "the whole gas assist system," including nitrogen compressors and controllers. Mr. Dier testified that Mercer Molding in New Jersey has at least one NCU from Bauer, and a Bauer nitrogen generator. Mr. Michael Lynch, sales manager for Bauer's Plastics Technology Group in Detroit, testified that his office performed demonstrations for prospective buyers, including "supply[ing] a nitrogen

control unit, explain[ing] how the unit needs to be hooked or connected to the molding machine and the mold itself and arrive at the customer's location and physically run the process in some applications." Bauer sometimes supplied a nitrogen generation system for the demonstrations. Mr. Lynch also testified that Bauer sold "close to a hundred probably" NCU units, none of which were sold for uses other than gas assist injection molding.

Because Bauer used, offered to sell, and sold the NCU and a "supply of stored gas" for use in gas assistance of injection molding, a genuine issue of material fact has been raised as to direct infringement of method claim 2. Therefore, the district court erred in granting summary judgment on that issue.

### III. Exceptional Case Determination

According to 35 U.S.C. § 285, "[t]he court in exceptional cases may award reasonable attorney fees to the prevailing party." The district court denied Bauer's motion to find the case exceptional, stating "this court declines to find the case exceptional. The court cannot conclude by clear and convincing evidence that plaintiff's complaint is not [sic] based on bad faith, or inequitable or unfair conduct."

The prevailing party may prove the existence of an exceptional case by showing: inequitable conduct before the PTO; litigation misconduct; vexatious, unjustified, and otherwise bad faith litigation; a frivolous suit or willful infringement. Hoffmann-La Roche Inc. v. Invamed Inc., 213 F.3d 1359, 1365, 54 USPQ2d 1846, 1850 (Fed. Cir. 2000). Litigation misconduct and unprofessional behavior are relevant to the award of attorney fees, and may suffice, by themselves, to make a case exceptional. Sensonics, Inc. v. Aerosonic Corp., 81 F.3d 1566, 1574, 38 USPQ2d 1551, 1557-58 (Fed. Cir. 1996).

Bauer argues that the court abused its discretion in failing to find this case exceptional. However, Bauer does not allege litigation misconduct or unprofessional behavior on the part of Epcon.

Indeed, the district court specifically found no bad faith or inequitable or unfair conduct. Instead, Bauer argues that Epcon filed the present action without first performing an infringement investigation, without obtaining a favorable infringement or validity opinion of counsel, after receiving an adverse validity opinion of counsel, and without evidence of direct infringement, basing its allegations on rumor and speculation.

Inadequacy of pre-filing preparation may be relevant to the “exceptional” case question. See Superior Fireplace Co. v. Majestic Prods. Co., 270 F.3d 1358, 1377-78, 60 USPQ2d 1668, 1682-83 (Fed. Cir. 2001). However, Bauer’s allegations regarding opinions of counsel obtained or not obtained by Epcon are not necessarily relevant to a determination by the court of whether a case is “exceptional.” The prior opinion of Mr. Watters, allegedly conveyed to Epcon, concerning the validity of the ‘455 patent is irrelevant to this case because the district court failed to make any finding regarding validity. Similarly, the failure of Epcon to procure a favorable validity opinion for the ‘455 patent is also irrelevant to the present case. As for Epcon’s failure to procure a favorable infringement opinion, this may be relevant, but it is not conclusive. In this case, where the evidence of direct infringement is sufficient to preclude summary judgment, Epcon’s failure to obtain a favorable infringement opinion prior to filing suit is of diminished significance.

Assuming, arguendo, that Bauer is correct that Epcon failed to perform an adequate investigation prior to filing the complaint, this fact does not mandate a finding that this case is exceptional, or that Bauer is entitled to any attorney fees. Given the availability of other remedies for the lack of such investigation, e.g., under Fed. R. Civ. P. 11, the district court’s decision was well within its discretion, especially considering the evidence of infringement Epcon was able to eventually uncover.

None of the arguments offered by Bauer compels a finding that the case is exceptional. We find that the district court did not abuse its discretion in denying Bauer’s motion to declare this case exceptional.

#### IV. Motion to Strike

Bauer moves in its brief under Fed. Cir. R. 27 for an order striking portions of Epcon's briefs. Bauer contends that both of Epcon's briefs improperly refer to non-record documents in violation of Fed. R. App. P. 10. Bauer contends that Epcon improperly designated and included in the Joint Appendix on appeal documents not properly part of the record in the district court below. Bauer states that it has discussed the issue with counsel for Epcon, and indicates that Epcon will object to Bauer's motion and file a response. Epcon filed no such response.

The documents appearing in the Joint Appendix but not of record are alleged to include: (1) a Bauer brochure, (2) a Bauer instruction manual, (3) a letter between counsel threatening suit, and (4) an order of the district court adding a party plaintiff. The alleged violation of our rules notwithstanding, none of these documents appear to be particularly germane to the issues on appeal, and the references in the briefs appear to be minimally prejudicial, if at all. The motion to strike is denied.

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

#### COSTS

No costs.