

United States District Court,  
D. Maryland, Northern Division.

**DESERT AIRE CORP,**  
Plaintiff.

v.  
**AAON INC,**  
Defendant.

Civil No. WDQ-06-289

**Oct. 30, 2006.**

**Background:** Holder of patent for control valves in reheat process for industrial dehumidifiers sued competitor for patent infringement. Parties filed cross-motions for summary judgment.

**Holdings:** The District Court, William D. Quarles, J., held that:

- (1) "coupled" in patent meant connected without an intervening valve that could impede flow to the first condenser during normal operation, and
- (2) accused devices did not literally infringe patent.

Plaintiff's motion denied; defendant's motion granted in part and denied in part.

6,055,818. Not Infringed.

Philip M. Andrews, Kramon and Graham PA, Baltimore, MD, Daniel R. Johnson, Joseph A. Kromholz, Melissa S. Hockersmith, Ryan Kromholz and Manion SC, Milwaukee, WI, for Plaintiff.

David L. McCombs, Theodore George Baroody, Haynes And Boone LLP, Dallas, TX, Michelle Meira Marcus, Vicki Ann Margolis, Venable LLP, Washington, DC, for Defendant.

## **MEMORANDUM OPINION**

**WILLIAM D. QUARLES, JR., District Judge.**

Desert Aire Corp. ("Desert Aire") has sued AAON, Inc. ("AAON") for patent infringement. Pending are the parties' cross-motions for summary judgment. For the following reasons, Desert Aire's motion will be denied, and AAON's motion will be granted in part and denied in part.

### **I. Background**

Desert Aire manufactures industrial dehumidifiers and owns United States Patent Number 6,055,818, "Method for Controlling Refrigerant Based Air Conditioner Leaving Air Temperature" (the "'818 patent"). Compl. para. 1-2. AAON manufactures air-conditioning and heating equipment. Compl. para. 3-4. Desert Aire has sued AAON, alleging that AAON's RK and RM series of rooftop air-conditioning units infringe Claims 1 through 4 of the '818 Patent. Compl. para. 23, 87.

The systems discussed in this case commonly effect a "reheat process" that uses the hot compressed refrigerant gas produced in an incorporated conventional air-conditioning system to transfer heat to air or water flowing through the system, thereby increasing the temperature of that air or water to a desired level. Def.'s Mot. 1. Heat transfer occurs in a condenser, alternatively called a "reheat condenser," "reheater," "reheat coil," or "heat reclaim condenser," where the hot refrigerant gas often travels through a coiled conduit that is in contact with the air or water to be heated. *Id.* at 1, Ex. A col. 6 *l.* 17, col. 10 *ll.* 18-20, Figs. 1, 3, Ex. Q at 3, Fig. 1, Ex. V. The reheater may also be called the "first condenser," as the refrigerant afterward flows to and through a "second condenser," located outside the system, that transfers the remaining heat in the refrigerant to another medium, which is usually the air outside the air-conditioned space. *Id.* Ex. A col. 10 *ll.* 18-20, Figs. 1, 3.

When the air or water exiting the system FN1 is raised to the desired temperature, these systems use a configuration of one or more valves to bypass the first condenser and send refrigerant directly to the second condenser. *Id.* at 1, Ex. Q at 2-4, Figs. 1, 2. These valves are called "control valves," as they proportion the flow of the refrigerant during normal operation between the first condenser and bypass in response to inputs from the system to achieve the desired air or water temperature. *Id.* Some valves, referred to as "solenoid" or "on-off" valves, can only operate in an completely open or closed position, while others, called "modulating" or "flow-throttling" valves, operate incrementally. *Id.* Ex. A col. 10 *l.* 24, Ex. Q at 2-4, Figs. 1, 2, Ex. V.

FN1. Known as "leaving air" or "leaving water."

Pending are AAON's motion for summary judgment of either non-infringement or invalidity of the '818 Patent, and Desert Aire's motion for summary judgment of infringement.

## **II. Discussion**

### **A. Standard of Review for Summary Judgment**

Under Rule 56(c), summary judgment is appropriate when there is no genuine issue of material fact, and the moving party is entitled to judgment as a matter of law. Fed.R.Civ.P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986). Only "facts that might affect the outcome of the suit under the governing law" are material. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986). A dispute about a material fact is genuine "if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Id.*

In considering a motion for summary judgment, "the judge's function is not ... to weigh the evidence and determine the truth of the matter but to determine whether there is a genuine issue for trial." *Id.* at 249, 106 S.Ct. 2505. Thus, "the judge must ask ... whether a fair-minded jury could return a verdict for the [nonmoving party] on the evidence presented." *Id.* at 252, 106 S.Ct. 2505. The mere existence of a

"scintilla" of evidence is insufficient to preclude summary judgment. *Anderson*, 477 U.S. at 252, 106 S.Ct. 2505. The court must also view any inferences drawn from the underlying facts "in the light most favorable to the party opposing the motion." *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587, 106 S.Ct. 1348, 89 L.Ed.2d 538 (1986).

## **B. Patent Infringement**

[1] "An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed.Cir.1995), *aff'd*, 512 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

### **1. Claim Construction**

#### **i. Law**

[2] The first step in infringement analysis, known as claim construction, is a matter of law and the province of the court. *Markman*, 517 U.S. at 385-91, 116 S.Ct. 1384. A court looks first to the claim language itself to define the scope of the patented invention and the limits of the patentee's rights. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed.Cir.2005) (en banc) *cert. denied*, 546 U.S. 1170, 126 S.Ct. 1332, 164 L.Ed.2d 49 (2006); *Bell Atl. Network Serv's, Inc. v. Covad Communic'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed.Cir.2001).

[3] [4] Generally, the terms of a claim are given "their ordinary and accustomed meaning as understood by one of ordinary skill in the art" at the time the patent application was filed. *Phillips*, 415 F.3d at 1312-13; *Bell Atl. Network Serv's, Inc.*, 262 F.3d at 1267. But as the meaning of a claim term is often not immediately apparent to persons of skill in the art, and "because patentees frequently use terms idiosyncratically, the court looks to those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean." *Phillips*, 415 F.3d at 1314 (internal quotation marks omitted) *see also* *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1343 (Fed.Cir.2001) ("[I]f the term or terms chosen by the patentee so deprive the claim of clarity that there is no means by which the scope of the claim may be ascertained by one of ordinary skill in the art from the language used, a court must look to the specification and file history to define the ambiguous term in the first instance." (internal quotation marks omitted)).

[5] [6] [7] A court first considers the evidence intrinsic to the patent: (1) the words of the claims themselves; (2) the remainder of the patent specification; and (3) the prosecution history. *Phillips*, 415 F.3d at 1314. A court may then rely on relevant extrinsic evidence, but such evidence "is less significant than the intrinsic record in determining the legally operative meaning of claim language." *Id.* at 1314, 1317 (internal quotation marks omitted). It is improper to rely on extrinsic evidence if the meaning of a claim limitation is clear from the intrinsic evidence. *Bell Atl. Network Serv's, Inc.*, 262 F.3d at 1268-69.

[8] [9] [10] [11] [12] [13] [14] When examining the words of the claims, the use of a claim term within the context of a claim can provide a firm basis for construction. *Phillips*, 415 F.3d at 1314. A claim term that appears in other places in the same claim or in other claims in the same patent should be construed consistently. *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed.Cir.2001). The terms of a claim must also be examined in the context of the patent specification, of which they are a part. *Phillips*, 415 F.3d at 1315. "The specification is always highly relevant to the claim construction analysis[;] ... it is the single

best guide to the meaning of a disputed term." *Id.* (internal quotation marks omitted). In the specification, the patentee may explicitly define a claim term differently from its ordinary or accustomed meaning. *Bell Atl. Network Serv's, Inc.*, 262 F.3d at 1268. The specification may also "define claim terms by implication, such that the meaning may be found by a reading of the patent documents." *Id.* (internal quotation marks omitted). But even though "claims must be read in view of the specification, ... limitations from the specification are not to be read into the claims." *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1326 (Fed.Cir.2002).

[15] As part of the intrinsic evidence, the court also considers the patent's prosecution history, which consists of the complete record of the proceedings before the United States Patent and Trademark Office, including the prior art cited during the patent examination, and "any express representations made by the applicant regarding the scope of the claims." *Id.*; *Phillips*, 415 F.3d at 1317. The prosecution history can demonstrate "whether the patentee has relinquished a potential claim construction in an amendment to the claim or in an argument to overcome or distinguish a reference." *Bell Atl. Network Serv's, Inc.*, 262 F.3d at 1268.

[16] [17] [18] "It is a rule of patent construction consistently observed that a claim in a patent as allowed must be read and interpreted with reference to claims that have been cancelled or rejected, and the claims allowed cannot by construction be read to cover what was thus eliminated from the patent." *Scriber-Schroth Co. v. Cleveland Trust Co.*, 311 U.S. 211, 220-21, 61 S.Ct. 235, 85 L.Ed. 132 (1940). The doctrine of prosecution disclaimer precludes patentees from recapturing through claim construction what was disclaimed during prosecution in order to obtain the patent. *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed.Cir.2003). Prosecution disclaimer "promotes the public notice function of the intrinsic evidence and protects the public's reliance on definitive statements made during prosecution." *Id.* at 1324. For prosecution disclaimer to attach, though, "the alleged disavowing actions or statements made during prosecution [must] be both clear and unmistakable." *Id.* at 1326.

## ii. Analysis

[19] The claim construction analysis in this case focuses on the meaning of the term "coupled" in the '818 Patent. *Desert Aire* argues that the term should be construed to mean "connected, either directly or indirectly." *Pl.'s Resp.* 5. *AAON* asserts that it should mean "the linking of adjacent components without intervening control valves." *Def.'s Mot.* 11. The precise meaning of the term is significant because the '818 Patent, depicted in Figure 1, FN2 claims:

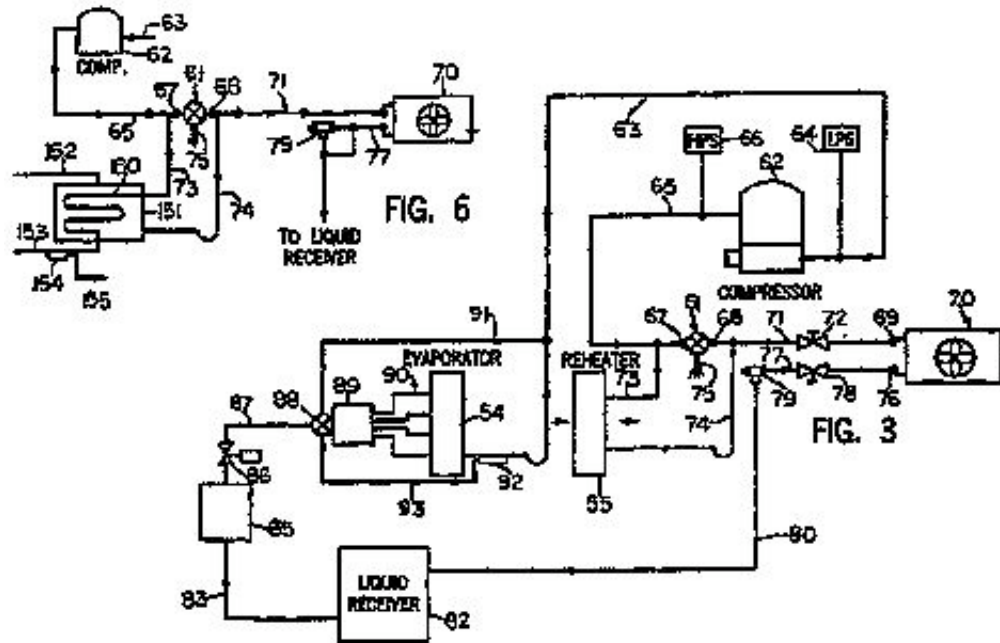
FN2. Figure 1 depicts the preferred embodiment from the '818 Patent specification. At this point the Court refers to this diagram for illustration only, and not to impose any limitation from the specification onto the claims.

(1) a "first condenser [(No. 55)] being *coupled* to said compressed refrigerant outlet [(No. 65)]," (from Claim 1); and

(2) "an electroresponsive flow-throttling valve [(No. 61)] having an inlet [(No. 67)] *coupled* to said outlet [(No. 65)] of the compressor [(No. 62)] and to said inlet [(No. 73)] of said first condenser [(No. 55)]," (from Claim 4).

*Def.'s Mot. Ex. A* col. 10 *ll.* 22-23, col. 11 *ll.* 30-32, Fig. 3 (emphasis added). *AAON* argues that a control

valve positioned between the first condenser and both the compressor and flow-throttling valve in the accused devices sets them outside the claims of the '818 Patent, because the presence of such an intervening valve means the adjoining compressor, valve, and first condenser are not "coupled" to each other. Both of the parties' proffered definitions are consistent with the presumed ordinary and accustomed meaning of the word "coupled" in the context of the claims, yet they are not coextensive. The first part of each parties' interpretation-Desert Aire's "connected" and AAON's "linking of adjacent components"-is indistinct from "coupled." The dispute arises over the scope of the claim term. Desert Aire broadly asserts that components coupled under the '818 Patent can be "connected ... directly or indirectly," while AAON asserts a more narrow scope of coupled components being "link[ed] ... without intervening control valves."



**Figure 1:** Depiction of the Preferred Embodiment in the '818 Patent. Def.'s Mot. Ex. A.

AAON's narrow interpretation is not apparent from the context of the claims themselves. Nor does the use of the term "coupled," which appears in the '818 Patent's four claims seventeen times, invalidate Desert Aire's broader interpretation of "directly or indirectly." Def.'s Mot. Ex. A cols. 10-12. AAON argues that the claims' use of "coupled to" with the "inlet" or "outlet" of a component as the prepositional object indicates that the components are directly adjacent, or at least lack an intervening control valve; but the use of "inlet" or "outlet" of a successive component could simply indicate the direction of flow, and not exclude intervening components, so this argument fails.

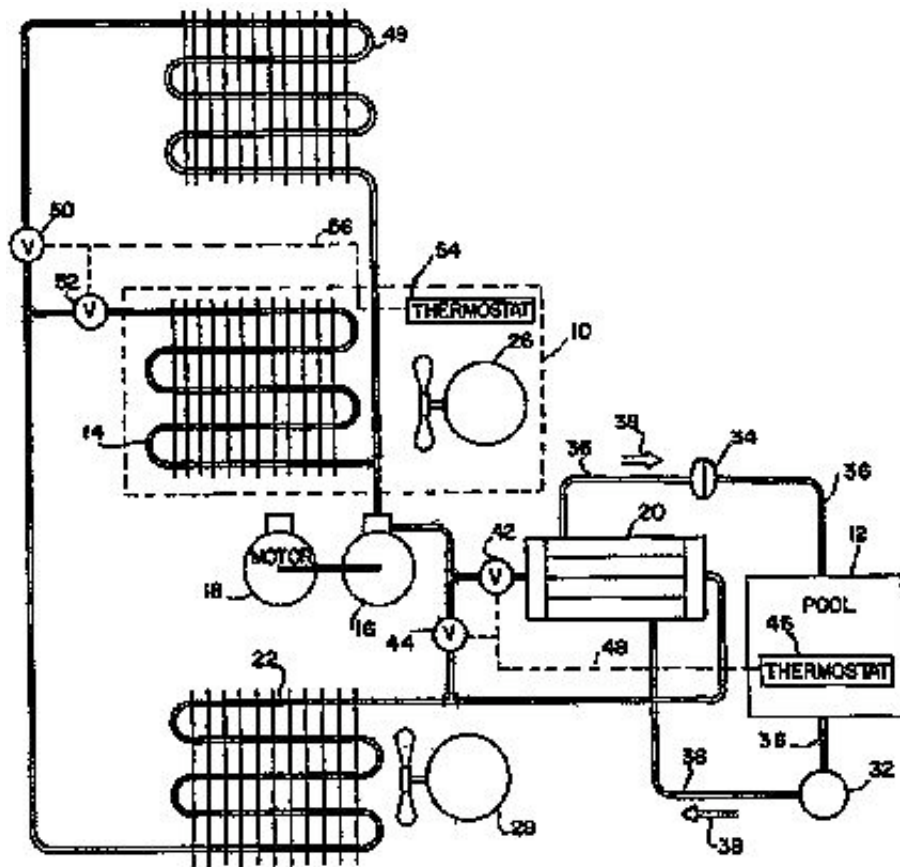
Both parties often refer to the '818 Patent's specifications to support their constructions, especially the description of the preferred embodiment and its depiction in '818 Patent (Figure 1). The specification lends support to Desert Aire's construction including indirect connections of non-adjacent components. The diagram and related text indicate an intervening "manually-operable valve 72" between the "coupled" "throttling valve 61" and "second condenser 70." Def.'s Mot. Ex. A col. 6 ll. 11-14. There is also, among

other components, an intervening "liquid line solenoid valve 86" between the "coupled" "[second] condenser 70" and the "expansion valve 88." Def.'s Mot. Ex. A col. 7 *ll.* 8-17, col. 10 *ll.* 36-37.

AAON refers to the specification to counter Desert Aire's construction and support its own interpretation, arguing that the intervening components in the preferred embodiment, including the manually operable and solenoid valves, do not restrict flow of the refrigerant during the normal operation of the system, and are thus not intervening *control* valves. AAON's assertion may be correct, but it does not serve AAON's limited scope of construction. Although the specification may be used to clarify claim terms, "[i]n examining the specification for proper context ... this [C]ourt will not at any time import limitations from the specification into the claims." *CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 1231 (Fed.Cir.2005); *see also* *Teleflex, Inc.*, 299 F.3d at 1326.

Although there is no clear limit to the scope of "coupled" in the language of the claims or the specification, a reading of the prosecution history clearly shows that Desert Aire adopted a more narrow definition of the disputed term, similar to that asserted by AAON, by disclaiming a configuration with an intervening control valve in order to gain patent approval.

United States Patent Number 3,926,008 (the "Webber Patent") claims a: "condenser means including, in series with said first passageway, an aircooled [sic] condenser through which said refrigerant flows, and [a] thermostatically-controlled valve means for connecting said compressor directly to said air-cooled condenser and bypassing said first-mentioned passageway." Def.'s Mot. Ex. G col. 4 *ll.* 22-27. The Webber Patent's preferred embodiment is depicted in Figure 2. The specification more clearly describes "a valve 42 connected between the compressor 16 and the condenser 20 and a by-pass valve 44 connected between the compressor 16 and condenser 22." *Id.* col. 2 *ll.* 59-61.



**Fig. 1**

**Figure 2:** Depiction of the Preferred Embodiment in the Webber Patent. Def.'s Mot. Ex. G.

In rejecting Desert Aire's patent application in the July 23, 1998 office action, the patent examiner stated:

Claim 1 is rejected under 35 U.S.C. [s. ]103(a)[FN3] as being unpatentable over Webber in view of Considine.FN4 Webber shows a refrigeration system having a first condenser 20 a second condenser 22, a solenoid on/off valve 44 having an inlet coupled to the outlet of compressor 16 and the inlet of [first condenser] 20, [valve] 44 having an outlet coupled to the outlet of [first condenser] 20 and the inlet of [second condenser] 22. Considine at 11-17 shows on-off and throttling (proportional-position) at 11-21 with the conclusion that throttling provides more stable flow. In order to achieve more stable flow it would have been obvious to provide throttle flow for [valve] 44 in Webber. Claim 1 is an "open" claim since it recites "including". Therefore the presence of valve 42 in Webber does not prevent claim 1 from being readable on Webber.

FN3. 35 U.S.C. s. 103(a) provides: "A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made."

FN4. The patent examiner's "Considine" reference is to *Process Instruments and Controls Handbook* 11-22 (Douglas M. Considine ed., 1957). Def.'s Mot. Ex I.

Def.'s Mot. Ex. I.

AAON argues that the basis of the patent examiner's rejection was that the '818 Patent's claims read on the prior art of the Webber Patent's two-control-valve configuration. Desert Aire contends that although it "presented arguments that, based on its analysis of the *Webber* Patent, ... the piping and valve configuration claimed in the '818 Patent was different than that of the *Webber* Patent," it "never argued that the *reason* its configuration was novel and patentable was *because* Plaintiff used a single valve." Pl.'s Resp. 11. Desert Aire is correct that its arguments to the patent examiner were not so explicitly stated, but its disclaimer is nonetheless clear from the context of the prosecution history.

Desert Aire argues that in its Amendment B-After Final ("Amendment B"), filed March 19, 1999, it offered the patent examiner "a combination of three elements" in its proposed amendment to Claim 1 that distinguished its invention from the Webber Patent's claims. Referencing the diagram in Figure 1, the appeal states that:

- (1) "there is substantially unimpeded flow through conduits 65 and 73 to reheater [(first condenser)] 55;"
- (2) "the outflow from condenser 55 can travel via conduits 74 and 71 to the secondary condenser 70;" and
- (3) "in additional to having parallel, or shunt paths, all the liquid passing through both condensers is returned via line 80 to the evaporator."

Def.'s Mot. Ex. K at 3. Desert Aire argues that it specifically contended to the examiner that, in the Webber Patent (Figure 2), "there is no path by means of which the outlet from condenser 22 can enter the inlet of the second condenser 20." *Id.*

Only Desert Aire's first asserted element, that "there is substantially unimpeded flow through conduits 65 and 73 to reheater 55," could have validly distinguished its invention from the Webber Patent, as its remaining two elements were based on a confused reading of the Webber Patent that was contradicted by the patent examiner. Desert Aire first asserted to the patent examiner in its Amendment A, filed November 13, 1998, that "condenser 22" of the Webber Patent be considered the first condenser, and "condenser 20" be considered the second condenser. Pl.'s Resp. Ex. Q at 2. The patent examiner apparently rejected this confused reading of the Weber Patent in his January 19, 1999 office action, stating: "The applicants arguments are based upon different modes of reading the reference on the claim, but none of these mode [sic] is the one used by the Examiner. The arguments are therefore not considered germane to the Examiner's rejection." Def.'s Mot. Ex. J at 2. The patent examiner had previously stated in the July 23, 1998 office action that "Webber shows a refrigeration system having a first condenser 20 a second condenser 22."

There is no evidence in the record that the patent examiner reversed his interpretation, and it is consistent with the language of the Webber Patent, which states that "condenser 20" is bypassed by "clos[ing] the valve 42 and open[ing] the valve 44 to conduct refrigerant directly *from* the compressor 16 *to* and through the air-cooled condenser 22." Def.'s Ex. G col. 2 *ll.* 59-68, col. 3 *ll.* 1-3 (emphasis added). When "condenser 20"



and "condenser 22" are correctly compared to the '818 Patent's first and second condensers, respectively, it is clear that the condensers are arranged in series so that, in both inventions: (1) refrigerant always passes from the first condenser to the second condenser; and (2) the refrigerant from both condensers is returned to the evaporator. Desert Aire's final contention that, in the Webber Patent, "there is no path by means of which the outlet from condenser 22 can enter the inlet of the second condenser 20" is inconsistent with a correct interpretation of the Webber Patent specifications. Def.'s Mot. Ex. K at 3.

As to the remaining valid distinction, there is further dispute between the parties as to the meaning of the term "substantially unimpeded flow." AAON asserts that the diagram referred to by Desert Aire in the '818 Patent specification (Figure 1) does not include any component "along conduits 64 and 73 to reheater 55." Thus in distinguishing its invention from the Webber Patent by the "substantially unimpeded flow" between the compressor and first condenser, Desert Aire disclaimed patent coverage of a structure with a control valve between the compressor and first condenser. Desert Aire counters by arguing that the term "substantially" has been determined in patent law to mean " 'largely but not necessarily wholly' " and thus "the claimed elements of the '818 [P]atent could be expected to incorporate a certain degree of impedance in the indicated flow path," including an intervening control valve. Pl.'s Reply 3 ( *quoting* LNP Eng'g Plastics, Inc. v. Miller Waste Mills, Inc., 275 F.3d 1347, 1354 (Fed.Cir.2001)).

Desert Aire's semantic argument is not convincing when the asserted "substantiated unimpeded flow" between the compressor and first condenser is considered in the context of Desert Aire's response to the July 23, 1998 rejection by the patent examiner. The examiner concluded that, because the replacement of "on-off" valves with more stable "throttling" valves was obvious, Desert Aire's invention was otherwise readable on the two-valve configuration specified in the Webber Patent. Def.'s Mot. Ex. I. "[T]he presence of valve 42 in Webber" (the valve between the compressor and the first condenser), did "not prevent claim 1 from being readable on Webber," because Desert Aire's Claim 1 is an " 'open' claim" -it recites a system "including" certain elements without explicitly excluding others. *Id.*; *see* SanDisk Corp. v. Memorex Products, Inc., 415 F.3d 1278, 1284 (Fed.Cir.2005) ("includes" is a patent law term of art that permits the presence of additional elements in a device that do not satisfy the stated claim limitations). In other words, Desert Aire claimed a "flow-throttling valve having an inlet *coupled* to said outlet of the compressor and to said inlet of the first condenser," but such a valve configuration was readable on the Webber Patent, despite the presence of a second valve between the compressor and first condenser in the Webber Patent, as such had not been excluded from Desert Aire's open claim. Def.'s Mot. Exs. H, I (emphasis added).

By arguing that "substantially unimpeded flow" between the "coupled" compressor and first condenser distinguished its invention from the Webber Patent, Desert Aire excluded the use of a second control valve to proportion the flow from the compressor to the first condenser from the scope of the ' 818 Patent. Def.'s Mot. Ex. K at 3. Although, as Desert Aire argues, "substantially unimpeded flow" can have other meanings, there is only one use apparent in the prosecution history that distinguishes Desert Aire's single flow-throttling valve concept from the two-valve configuration in the Webber Patent. The clear distinction between "the flow through conduits 65 and 73," i.e., from the compressor (No. 62) "to reheater 55" (the first condenser) in the '818 Patent diagram (Figure 1), and the flow from the compressor (No. 16) to the first condenser (No. 20) in the Webber Patent diagram (Figure 2) is an intervening valve controlling flow to the first condenser present in the Webber Patent. Because Desert Aire's other asserted distinctions were based on a confused reading of the Webber Patent's specifications, the valve-configuration disclaimer is the only valid distinction that would be apparent to one skilled in the art. Following the filing of Amendment B the '818 Patent was not rejected based on any readability on the Webber Patent.

It would be reasonable then for one skilled in the art, upon reviewing the entire '818 Patent file, to rely on Desert Aire's statements to the patent examiner in the context of the prosecution history and make the same conclusions as this Court as to the scope of the '818 Patent's claims. The Court will not "recaptur[e] through claim construction" additional elements that were clearly "disclaimed during prosecution in order to obtain the patent." *Omega Eng'g, Inc.*, 334 F.3d at 1323. The Court thus narrows the scope of the claim term "coupled" in the '818 Patent and construes it to mean "connected without an intervening valve that may impede flow to the first condenser during normal operation." Such a construction, albeit cumbersome, is consistent with the claims and specifications of the '818 Patent, as it permits the presence of intervening components and other valves that may impede flow when the system is not operating, FN5 while providing the necessary limits to exclude the configuration disclaimed by Desert Aire to avoid the Webber Patent.

FN5. E.g., the manual (Nos. 72 and 78) and solenoid (No. 86) valves in the '818 Patent specification (Figure 1).

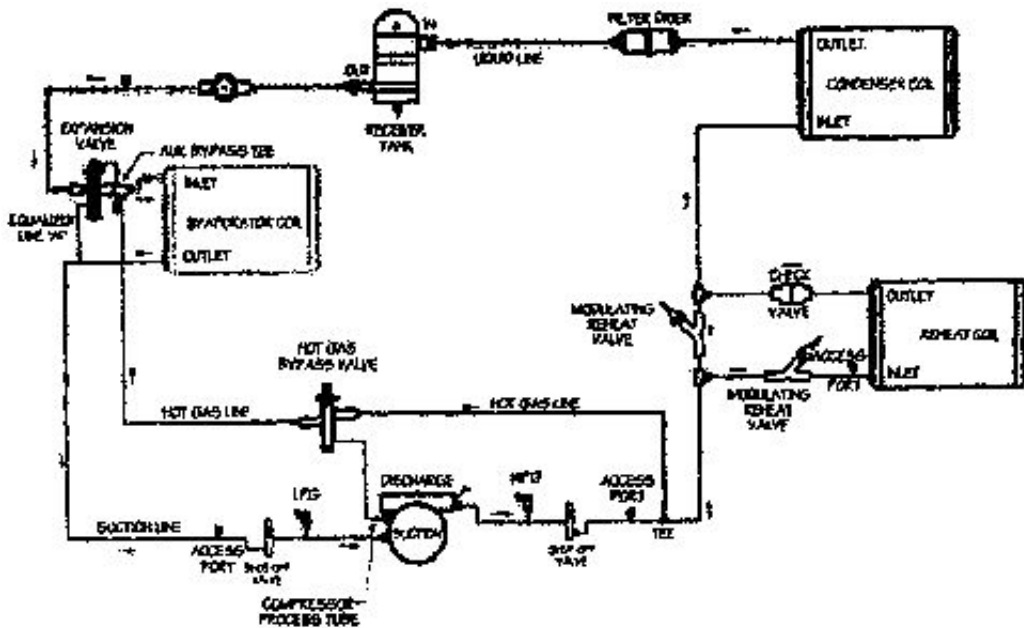
## **2. Claim Comparison**

### **i. Law**

[20] [21] [22] [23] "Infringement is assessed by comparing the accused device to the claims; the accused device infringes if it incorporates every limitation of a claim, either literally or under the doctrine of equivalents. If however, even one claim limitation is missing or not met, there is no literal infringement." *MicroStrategy Inc. v. Business Objects, S.A.*, 429 F.3d 1344, 1352 (Fed.Cir.2005) (citations and internal quotation marks omitted). Whether a device infringes on the properly construed claims of a patent, either literally or under the doctrine of equivalents, is a matter of fact. *Townsend Eng'g Co. v. HiTec Co., Ltd.*, 829 F.2d 1086, 1089 (Fed.Cir.1987). But when a device accused of literal patent infringement does not embody every element of the patent claim, no genuine issue of material fact is present, and summary judgment is appropriate. *Id.* at 1089-90; *see also* *General Mills, Inc. v. Hunt-Wesson, Inc.*, 103 F.3d 978, 983 (Fed.Cir.1997) ( "Where the parties do not dispute any relevant facts regarding the accused product ... but disagree over possible claim interpretations, the question of literal infringement collapses into claim construction and is amenable to summary judgment.")

### **ii. Analysis**

[24] Desert Aire claims literal infringement of the '818 Patent's claims, and makes no arguments under the doctrine of equivalents. The accused devices are AAON's RK and RM series of air conditioning units. Compl. para. 23 and 87. The parties agree that both of the accused devices use the design shown in Figure 3, which depicts the relative positioning of the compressor (labeled "discharge," bottom center of diagram), the first condenser (labeled "reheat coil," middle right of diagram) and the second condenser (labeled "condenser coil," top right of diagram). Def.'s Mot. 20, Ex. V; Pl.'s Resp. 17-18, Ex. D. The parties do not dispute that both the RK and RM series units include a first "modulating reheat valve" between the compressor and second condenser, and a second "modulating reheat valve" between the compressor and the first condenser. Both valves are also apparent in the photograph of the RM series product submitted as Exhibit 6 of Desert Aire's Complaint. Def.'s Mot. Ex. B.



**Figure 3:** Depiction of the reheat design in AAON's RK and RM series air conditioning units. Def.'s Mot. 20, Ex. V.

[25] AAON's accused devices do not meet one of the limitations of Claim 1 of the '818 Patent: "said first condenser being *coupled* to said compressed refrigerant outlet," and so do not infringe on Claim 1. Def.'s Mot. Ex. A col. 10 ll. 22-23 (emphasis added). Because the first condenser and compressor in both devices have a "modulating reheat valve" between them, they are not "connected without an intervening valve that may impede flow to the first condenser during normal operation." Def.'s Mot. 20, Ex. V; Pl.'s Resp. 17-18, Ex. D. For the same reason, the accused devices do not infringe upon Claim 4, which claims: "an electroresponsive flow-throttling valve having an inlet *coupled* to said outlet of the compressor and to said inlet of said first condenser." Def.'s Mot. Ex. A col. 11 ll. 30-32 (emphasis added); Def.'s Mot. 20, Ex. V; Pl.'s Resp. 17-18, Ex. D. Both Claims 2 and 3 of the '818 Patent claim a system "according to claim 1" and are thus dependent on the limitations of Claim 1. FN6 Def.'s Mot. Ex. A col. 11 ll. 1, 6. "It is axiomatic that dependent claims cannot be found infringed unless the claims from which they depend have been found to have been infringed," thus neither Claims 2 nor 3 can be found to have been infringed by the accused devices. *Wahpeton Canvas Co., Inc. v. Frontier, Inc.*, 870 F.2d 1546, 1553 (Fed.Cir.1989). Accordingly, AAON's motion for summary judgment of non-infringement of the '818 Patent will be granted, and Desert Aire's motion for summary judgment of infringement of Claims 1-4 of the '818 Patent will be denied.

FN6. "One or more claims may be presented in dependent form, referring back to and further limiting another claim or claims in the same application.... Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim." 37 C.F.R. s. 1.75 (2006).

### C. Patent Invalidity

AAON argues that if the '818 Patent is broadly construed to encompass the two-control valve configuration used in its accused devices, then the '818 Patent is invalid as obvious over prior art. As the Court has

construed the claim term "coupled" to exclude "an intervening valve that may impede flow to the first condenser during normal operation," and will grant summary judgment for non-infringement, AAON's argument is moot. Accordingly, AAON's motion for summary judgment of invalidity will be denied.

### **III. Conclusion**

For the reasons stated above, AAON's motion for summary judgment will be granted on AAON's non-infringement, and denied on the '818 Patent's invalidity; and Desert Aire's motion will be denied.

### **ORDER**

For the reasons discussed in the accompanying Memorandum Opinion, it is, this 30th day of October, 2006, ORDERED that:

1. AAON, Inc.'s motion for summary judgment (Paper No. 38) BE, and HEREBY IS, granted in part and denied in part;
2. Desert Aire Corp.'s motion for summary judgment (Paper No. 43) BE, and HEREBY IS, denied; and
3. The Clerk of the Court shall send copies of this Memorandum Opinion and Order to counsel for the parties.

D.Md.,2006.

Desert Aire Corp. v. AAON Inc.

Produced by Sans Paper, LLC.