United States District Court,
S.D. Texas, Houston Division.

**David SEITZ and Microtherm, Inc,**
Plaintiffs.
v.
**ENVIROTECH SYSTEMS WORLDWIDE INC., et al,**
Defendants.

**July 31, 2006.**

Loren G. Helmreich, Browning Bushman PC, Steve A. Bryant, Steve A. Bryant & Associates, Houston, TX, for Plaintiffs.

Arnold Weintraub, The Weintraub Group PLC, Farmington Hills, MI, Mark Chester, Scottsdale, AZ, for Defendants.

## CLAIM CONSTRUCTION ORDER AS TO DISPUTED TERMS

LEE H. ROSENTHAL**, District Judge.**

On May 30, 2006, this court held a *Markman* hearing on the construction of certain patent claims in U.S. Patent 5,216,743 ('743 Patent), U.S. Patent 5,866,880 ('880 Patent), and U.S. Patent 6,080,971 ('971 Patent). *See* Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). The parties did not dispute the meaning of the terms in Claims 1 and 6 of the '743 Patent, and this court entered an order on June 8, 2006 construing those terms. (Docket Entry No. 77). The parties presented arguments and competing constructions for certain terms in Claim 10 of the '880 and ' 971 Patents. Based on the pleadings, motions and responses, the parties' submissions, the evidence and arguments of counsel, and the applicable law, this court issues the following claim construction as to the disputed terms of Claim 10 in the '880 and '971 Patents.

### I. The Applicable Law

To determine the correct claim construction, a court must follow, first and foremost, the words of the patent claim itself. Phillips v. AWH, 415 F.3d 1303 (Fed.Cir.2005). The claims define the invention that the patentee owns, and the court may neither add words to nor subtract words from the claims in the process of construing them. Id. at 1312; *see also* TechSearch, L.L.C. v. Intel Corp., 286 F.3d 1360, 1373 (Fed.Cir.2002) (citing Perkin-Elmer Corp. v. Westinghouse Elec. Corp., 822 F.2d 1528, 1533 (Fed.Cir.1987)). Claim terms "are generally given their ordinary and customary meaning." Phillips, 415 F.3d at 1312 (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996)). "The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation." Id. at 1313. "Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term

appears, but in the context of the entire patent, including the specification." *Id.;* Medrad, Inc. v. MRI Devices Corp., 401 F.3d 1313, 1319 (Fed.Cir.2005) ("We cannot look at the ordinary meaning of the term ... in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history.").

"[T]he claims themselves provide substantial guidance as to the meaning of particular claim terms." Phillips, 415 F.3d at 1314. "In some cases, the ordinary meaning of claim language as readily understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Id*. The claims must, however, "be read in view of the specification, of which they are a part." Markman, 52 F.3d at 979. The specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term."

In addition to consulting the specification, the court "should also consider the patent's prosecution history, if it is in evidence ." Markman, 52 F.3d at 980. "The prosecution history, which we have designated as part of the 'intrinsic evidence,' consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent." Phillips, 415 F.3d at 1317. "Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent .... Furthermore, like the specification, the prosecution history was created by the patentee in attempting to explain and obtain the patent." *Id*.

Courts may also rely on extrinsic evidence in construing claims. Extrinsic evidence is "all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." Markman, 52 F.3d at 980. "Within the class of extrinsic evidence, the court has observed that dictionaries and treatises can be useful in claim construction." Phillips, 415 F.3d at 1318. "Because dictionaries, and especially technical dictionaries, endeavor to collect the accepted meanings of terms used in various fields of science and technology, those resources have been properly recognized as among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention." *Id*. In this case, the parties have relied on the patents themselves as the basis for claim construction.

**II. Analysis**

The patents in this suit involve flow-through or "tankless" water heaters that use a control system to achieve rapid heating of water to a desired temperature as it flows through the heater. The flow-through heater has multiple heating elements that are operated by a control system that regulates the activation and deactivation of power. The control system has temperature-sensing circuitry and "anticipation" circuitry that, together, control the electrical power to the heating elements to improve temperature control and making instantaneously heated water available on demand.

The parties dispute two terms that appear in each of the two patents: "therein," in the '880 Patent, column 22, lines 43-44 and in the '971 Patent, column 22, lines 1-2, and "each within at least one compartment," in the '880 Patent, column 22, lines 46-48, and in the '971 Patent, column 22, lines 3-4.

Claim 10 is an independent claim. It provides in relevant part:

10. An electrically powered heater powered by an alternating current source for substantially instantaneous

heating of a fluid, the heater comprising:

a housing defining at least one compartment therein having an inlet aperture and an outlet aperture;

a plurality of electrically powered heating elements each within the at least one compartment for heating the fluid;

a temperature sensor in fluid communication with the heated fluid; and

a controller for selectively activating each of the plurality of heating elements ... the controller activating a first of a plurality of heating elements for a predetermined first period of time and activating a second of a plurality of heating elements for a predetermined period of time....such that each of the first and second heating elements contributes to the heating of the fluid passing through the heater.

('880 Patent, col. 22, ll. 40-65; '971 Patent, col. 21, ll. 65-66, col. 22, ll. 1-23).

**A. "Therein"**

The disputed term appears as follows: "a housing defining at least one compartment *therein* having an inlet aperture and an outlet aperture."

The parties agree that "therein" means that the housing consists of at least one compartment but may consist of multiple components. The parties dispute whether "therein" also means that the phrase "having an inlet aperture and an outlet aperture" applies to each of the one or more compartments that a housing defines, or only to at least one of the one or more compartments. Seitz contends that the term "therein" means that "[t]here are one or more compartments in the housing. The at least one (one or more) compartments each have an inlet aperture and an outlet aperture." (Docket Entry No. 76 at 4). Envirotech contends that the term means: "A single housing defines (marks the limits of) a single compartment or multiple compartments. Each compartment lies within the single housing. At least one compartment within the single housing has an inlet aperture and an outlet aperture. Other compartments, if any, may or may not have an aperture or apertures. The housing may or may not have an aperture or apertures." (Docket Entry No. 78 at 1).

As both parties read the words, "therein" at least means that a housing must have at least one compartment, but may have than one compartment. The issue is whether the word "therein" means that the words "having an inlet aperture and an outlet aperture" refer to only one compartment in the housing, or to each of the more than one compartments in the housing.

The parties agree that if there is only one chamber in a housing, that chamber must have an inlet aperture and outlet aperture. The parties disagree as to whether, if there is more than one chamber, each chamber must have an inlet and outlet aperture, as long as at least one chamber is so equipped. The specifications make it clear that in a multi-chamber embodiment, each chamber has an opening to permit the water to flow in, to contact the heating element, and to permit the water to flow out, to the next successive chamber or to the outlet line that discharges the water from the housing. If there is more than one chamber within a housing, each chamber must have an opening for the water to enter and another opening for the water to flow out.

Claim 10 clearly states that if the housing consists of a single chamber, that chamber must have an inlet

aperture and an outlet aperture. Claim 10 does not say whether, if the housing consists of more than one chamber, each chamber must have an inlet aperture and outlet aperture. The specifications refer to a series of reduced-aperture fluid couplings connecting one chamber to another. The terms "inlet line" and "outlet line" and "fluid outlet" refer to the flow of water into and out of the first chamber and the last chamber. ('880 Patent, col. 7, ll. 49-59, col. 8, ll. 33-39; '971 Patent, col. 7, ll. 49-61, col. 8, ll. 36-39). In dependent claim 7 and dependent claim 16, the distinction between "inlet aperture" and "outlet aperture" on the one hand, and other openings or connections between or among a plurality of compartments is made even clearer. Claim 7 defines the "heater as defined in claim 1, wherein: the housing defines a plurality of compartments therein each fluidly connected in the series between the inlet aperture and the outlet aperture." ('880 Patent, col. 22, ll. 28-31; '971 Patent, col. 21, ll. 54-57). Claim 16 describes "[t]he heater as defined in claim 10, wherein: the housing defines a plurality of compartments therein each fluidly connected in the series between the inlet aperture and the outlet aperture." ('880 Patent, col. 23, ll. 17-20; '971 Patent, col. 22, ll. 49-51). It appears, from the limited submissions the parties have provided, that "inlet aperture" and "outlet aperture" refer to the initial and last opening that is in one chamber when it is the only one, and into the first chamber and out of the last chamber when there are a plurality of chambers. On this reading, Claim 10 does require that in a single-chamber embodiment, the chamber must have an inlet and outlet aperture, but does not require that every chamber in a multi-chamber embodiment must have an inlet and outlet aperture.

Envirotech's argument that the words "having an inlet aperture and an outlet aperture" cannot refer to the housing is supported by neither the claim language nor the specifications. The specifications describe water flowing into a chamber through a fluid inlet line and into the bottom of a chamber to contact the heating element. In a multi-chamber embodiment, the water flows through a series of reduced-aperture fluid couplings that link one chamber to another. The water is discharged from the last chamber through a fluid outlet line and into the fluid outlet. ('880 Patent, col. 7, ll. 55-67; '971 Patent, col. 7, ll. 53-67).

The plain meaning of the words is that a housing must consist of at least one compartment that has an inlet aperture and an outlet aperture. Claim 10 does not state whether each of the compartments in a multi-compartment configuration must have an inlet aperture and an outlet aperture, although it appears clear that each chamber must have openings for the water to flow from one chamber to the next, through that chamber, and into the following chamber. To the extent Envirotech argues for a construction that the housing "may or may not have an aperture or apertures," it is rejected as inconsistent with the claim language and specifications.

This court construes the term "therein" in Claim 10 of the '880 and '971 patents to mean that a housing must have at least one compartment or chamber within it that has an inlet aperture and an outlet aperture. A housing may have more than one compartment or chamber. A housing must have an inlet aperture and an outlet aperture.

**B. "Each Within At Least One Compartment"**

Claim 10 states that a heater comprises a housing that consists of: (1) "at least one" compartment or chamber and; (2) a plurality of heating elements "each within the at least one compartment for heating the water." Seitz asserts that the term "a plurality of electronically powered heating elements *each within the at least one compartment for heating the fluid*" means that each heating element must be within a compartment, and more than one heating element may be within a compartment, but not every compartment must contain a heating element. (Docket Entry No. 76 at 4-5). Envirotech asserts that the term means that if

there is more than one compartment, each compartment must contain at least one heating element. (Docket Entry No. 78 at 2).

The plain meaning of the terms does not support Envirotech's argument. The words do not say that every compartment must have a heating element. Rather, the words say that there must be a plurality of electrically powered heating elements. Each of these heating elements must be within a chamber for heating the fluid. In other words, no heating element can be outside a chamber or compartment. If the housing consists of more than one compartment, Claim 10 requires that every heating element must be in a compartment, but does not require that every compartment must have a heating element. If the housing consists of only one chamber, all the heating elements must be within that chamber. But if there is more than one chamber or compartment, there does not need to be a heating element in every compartment.

Envirotech's reading would require that in a multi-chamber configuration, every compartment must have a heating element. The words of Claim 10 do not support this reading. Rather, the words of the claim require two or more heating elements and one or more compartments, with each heating element inside one of the compartments, but not that each compartment contain at least one heating element.

The specifications permit the more flexible construction offered by Seitz. Both the '971 and '880 Patent summaries include the general description, "The present invention provides a flow-through or tankless water heater having multiple heating elements powered by one or multiple power supplies." ('880 Patent, col. 4, ll. 58-60; '971 Patent, col. 4, ll. 57-59). The specifications reference "[a] first heating element" and then "successive and remaining heating elements." ('880 Patent, col. 5, ll. 18-21; '971 Patent, col. 5, ll. 17, 19-20). The '971 and '880 Patents both include the following language, "A preferred embodiment of this invention uses four 7,000 watt heating elements connected electronically in parallel and arranged in series with respect to fluid flow through the water heater, as shown in FIG. 1." ('880 Patent, col. 17, ll. 52-55; '971 Patent, col. 17, ll. 52-55). The description refers to Figure 1, which shows a single heating element located in each heating chamber. In column 20 of the '880 and '971 Patents, however, the specifications state that although the described embodiments disclose "the use of multiple chambers each having a respective heating element therein," the control scheme could be applied to multiple heating elements in a single chamber or a single multi-section heating element. ('880 Patent, col. 20, ll. 28-37; '971 Patent, col. 20, ll. 28-34). This language permits flexibility on the number of chambers or elements in each chamber, limited only by the requirement that if there is only one compartment, it must contain two or more heating elements. If the patentee had wanted to require that at least one of the plurality of heating elements be located within one of a plurality of compartments, the language of dependent claim 16 would have been used: "a plurality of electrically powered heating elements each within a respective one of the plurality of compartments for heating the fluid." ('880 Patent, col. 24, ll. 3-5; '971 Patent, col. 22, ll. 50-52). Claim 10 is not so limited.

This court construes the term "each within one compartment" in Claim 10 of the '880 and '971 patents to mean that each heating element must lie within a compartment, but if there is more than one compartment, not every compartment must contain a heating element. The claim requires two or more heating elements and one or more compartments, and each heating element must be within a compartment. If the heater's housing contains only one chamber, all of the heating elements lie within that chamber. If the heater's housing contains more than one chamber, all the heating elements must lie within a chamber, but not within every chamber.

**III. Conclusion**

This court will hold a status conference on **August 17, 2006 at 10:00 AM** in Courtroom 11-B. The current scheduling order remains in place. Defendants' motion to extend deadlines, (Docket Entry No. 81), is denied without prejudice. This court will consider only unopposed motions to extend deadlines at this stage of the litigation.

S.D.Tex.,2006.
Seitz v. Envirotech Systems Worldwide Inc.

Produced by Sans Paper, LLC.