United States District Court
For the Northern District of California

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

ASETEK HOLDINGS, INC., *et al.*,

Plaintiffs,

v.

COOLIT SYSTEMS INC.,

Defendant.
_____/

No. C-12-4498 EMC

AND

No. C-13-0457 JST

ORDER RE CLAIM CONSTRUCTION FOR ASETEK'S PATENTS

ASETEK HOLDINGS, INC., *et al.*,

Plaintiff,

v.

COOLER MASTER CO., LTD., *et al.*,

Defendants.
_____/

Asetek is the owner of two patents: the '362 patent and the '764 patent. In this Court's case, Asetek has accused CoolIT of infringing the patents in suit. In Judge Tigar's case (No. C-13-0457 JST), Asetek has accused Cooler Master of infringing the patents in suit. This order addresses claim construction for the '362 and '764 patents in both the instant case as well as Judge Tigar's case.[1] A separate order shall provide claim construction on CoolIT's patent (the '456 patent).

[1] The parties in both cases agreed to have this Court address claim construction for both cases.

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I. LEGAL STANDARD

Claim construction is a question of law to be determined by the Court. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) ("hold[ing] that in a case tried to a jury, the court has the power and obligation to construe as a matter of law the meaning of language used in the patent claim"). "The purpose of claim construction is to 'determin[e] the meaning and scope of the patent claims asserted to be infringed.'" *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008).

> Words of a claim are generally given their ordinary and customary meaning, which is the meaning a term would have to a person of ordinary skill in the art after reviewing the intrinsic record at the time of the invention. "In some cases, the ordinary meaning of claim language . . . 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." However, in many cases, the meaning of a claim term as understood by persons of skill in the art is not readily apparent.

Id.

> Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, 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." Those sources include "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art."

Phillips v. AWH Corp., 415 F.3d 1303, 1314 (Fed. Cir. 2005). As a general matter, extrinsic evidence such as dictionaries and expert testimony is considered less reliable than intrinsic evidence (*i.e.*, the patent and its prosecution history). *See id.* at 1317-19 (noting that "extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence").

II. REPRESENTATIVE CLAIMS

As noted above, the two Asetek patents in suit are the '362 patent and the '764 patent. Although the two patents are not directly related, the parties have agreed that "certain similar claim terms in the two patents should be construed to have the same meaning." Docket No. 127 (Mot. at 3).

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Claims 1 and 14 of the '362 patent and claim 1 of the '764 patent are representative claims. The text of those claims is provided below (with terms to be construed in bold).

A. Claim 1 of the '363 Patent

> **1.** A cooling system for a computer system processing unit, comprising:
>
> an integrated element including a heat exchanging interface, a **reservoir**, and a pump, wherein
>
> the reservoir is configured to receive a cooling liquid from outside the reservoir through an inlet and pass the cooling liquid to the outside through an outlet, the reservoir including an upper chamber and a lower chamber, the upper chamber and the lower chamber being **vertically displaced chambers** that are separated from each other by at least a horizontal wall and **fluidly coupled** together by a plurality of **substantially circular passages**, at least one of the plurality of substantially circular passages being positioned on the horizontal wall, a boundary wall of the lower chamber being formed by the heat exchanging interface;
>
> the heat exchanging interface is adapted to provide separable thermal contact between the processing unit and the cooling liquid such that the heat is dissipated from the processing unit to the cooling liquid as the cooling liquid passes through the lower chamber of the reservoir; and
>
> the pump is adapted to direct the cooling liquid through the upper chamber and the lower chamber of the reservoir, the pump including a motor having a rotor, a stator and an impeller having a plurality of curved blades, the impeller being positioned within the reservoir;
>
> a heat radiator spaced apart from the integrated element, the heat radiator being fluidly coupled to the outlet and inlet of the reservoir, the heat radiator being configured to circulate the cooling liquid therethrough and exhaust heat from the cooling liquid; and
>
> a fan configured to direct air through the heat radiator, the fan being driven by a motor separate from the motor of the pump.

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B. Claim 14 of the '362 Patent

> **14.** A cooling system for a processing unit positioned on a motherboard of a computer, comprising:
>
> a **reservoir** configured to be coupled to the processing unit positioned on the motherboard at a first location, the reservoir being adapted to pass a cooling liquid therethrough, wherein the reservoir includes an upper chamber and a lower chamber, the upper chamber and the lower chamber being separate chambers containing cooling liquid that are separated by at least a horizontal wall and **fluidly coupled** together by one or more passageways, at least one of the one or more passageways being a **substantially circular passageway** positioned on the horizontal wall, the reservoir further including a heat exchanging interface configured to be placed in separable thermal contact with the processing unit, the heat exchanging interface being removably attached to the reservoir such that the heat exchanging interface forms a boundary wall of the lower chamber of the reservoir;
>
> a heat radiator configured to be positioned at a second location **horizontally spaced apart** from the first location when the reservoir is coupled to the processing unit;
>
> a fan adapted to direct air to the heat radiator to dissipate heat from the cooling liquid to surrounding atmosphere;
>
> a pump configured to circulate the cooling liquid between the reservoir and the heat radiator, the pump including a motor having a rotor, a stator, and an impeller having curved blades, the impeller being mechanically coupled to the rotor and at least partially submerged in the cooling liquid in the reservoir, wherein a speed of the impeller is configured to be varied independent of the speed of the fan.

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C. Claim 1 of the '764 Patent

1. A cooling system for a heat-generating component, comprising:

a double-sided chassis adapted to mount a pump configured to circulate a cooling liquid, the pump comprising a stator and an impeller, the impeller being positioned on the underside of the chassis and the stator being positioned on the upper side of the chassis and isolated from the cooling liquid;

a **reservoir** adapted to pass the cooling liquid therethrough, the reservoir including:

a pump chamber including the impeller and formed below the chassis, the pump chamber being defined by at least an impeller cover having one or more passages for the cooling liquid to pass through;

a thermal exchange chamber formed below the pump chamber and **vertically spaced apart** from the pump chamber, the pump chamber and the thermal exchange chamber being separate chambers that are **fluidly coupled** together by the one or more passages; and

a heat-exchanging interface, the heat-exchanging interface forming a boundary wall of the thermal exchange chamber, and configured to be placed in thermal contact with a surface of the heat-generating component; and

a heat radiator fluidly coupled to the reservoir and configured to dissipate heat from the cooling liquid.

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III. DISCUSSION

A. "reservoir"

Asetek	CoolIT	Cooler Master	Court
a single receptacle	region of the integrated element not in normal fluid flow and available to accommodate fluid expansion; or, alternatively, fluid containing portion of the device that includes a region not in the normal fluid flow and available to accommodate fluid expansion	the portions of the integrated element through which cooling liquid flows when the cooling system is operating	a receptacle or chamber for holding a liquid or fluid

1. "integrated element"

CoolIT and Cooler Master's constructions are problematic to the extent both incorporate the term "integrated element" (*i.e.*, a reservoir is part of an integrated element). As Asetek points out, the term "integrated element" (1) is not used in any of the claims of the '764 patent and (2) shows up only in claim 1, and claims dependent on claim 1, in the '362 patent. *See* '362 patent, claim 1 (describing "[a] cooling system for a computer system processing unit, comprising: an integrated element including a heat exchanging interface, a reservoir, and a pump"). Thus, while a reservoir can be a part of an integrated element, it need not be. When it is, the claim language so provides.

Furthermore, the term "integrated element" is itself a confusing term and therefore a construction incorporating that term would not be helpful to the jury. In this regard, the Court takes note that "integrated element" does not necessarily mean that the reservoir, pump, and heat exchanging interface must all be part of a single component. For example, the '362 and '764 patents make note that

> [t]he pump may not only be a self-contained pumping device, but *may* be made integrated into the reservoir, thus making the reservoir and pumping device one single integrated component. This single integrated element of the reservoir and the pumping device *may* also

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> be integrated, thus making the reservoir, the pumping device and the heating exchanging surface one single integrated unit.

'362 patent, col. 10:52-59 (emphasis added); '764 patent, col. 13:18-25 (stating the same); *see also* '362 patent, col. 2:25-35 (stating that, in the preferred embodiment, "the pump is placed inside the reservoir" and that "[i]n an alternative embodiment the pump is placed outside the reservoir in the immediate vicinity of the reservoir" – with both placements making "the element . . . easy to employ in new and existing computer systems"); 764 patent, col. 2:20-31 (making a similar point).

2. "not in normal fluid flow and available to accommodate fluid expansion"

CoolIT's construction is also problematic to the extent it offers a limitation – *i.e.*, "not in normal fluid flow and available to accommodate fluid expansion" – that is not justified by the intrinsic evidence. CoolIT argues that the limitation is appropriate based on the following excerpt from the specification:

> FIG. **3** shows another embodiment of a prior art cooling system. The figure shows the typical components in a liquid-cooling type CPU cooling arrangement. The figure shows a prior art heat exchanger **7**, which is in connection with a prior art liquid reservoir **8**, a prior art liquid pump **9** and a heat radiator **11** and an air fan **10** provided together with the heat radiator. . . . *The reservoir serves as a storage unit for excess liquid not capable of being contained in the remaining components. The reservoir is also intended as a means for venting the system of any air entrapped in the system and as a means for filling the system with liquid.*

'362 patent, col. 8:5-17; '764 patent, col. 10:37-49 (emphasis added).

But this position is fundamentally flawed because the statement above concerns the prior art, and not the present invention. *See* Docket No. 148 (Reply at 4). Indeed, the statement above specifically refers to a "*prior art* liquid reservoir" (emphasis added). That there is a difference between (1) a prior art reservoir and (2) a reservoir that is part of the invention claimed is underscored by the fact that a prior art reservoir was used, in part, as a means for venting the system of any air entrapped in the system. But a reservoir that is part of the invention claimed does not serve that purpose as it is part of a closed/sealed system.

Furthermore, CoolIT's position runs counter to the language used in the patent claims. The claims in both the '362 patent and '764 patent indicate that the reservoir is an integral part of fluid

flow for cooling. *See, e.g.*, '362 patent, claim 1 (providing that "the reservoir is configured to receive a cooling liquid from outside the reservoir through an inlet and pass the cooling liquid to the outside through an outlet"); '362 patent, claim 14 (providing that the reservoir is "adapted to pass a cooling liquid therethrough"); '764 patent, claim 1 (providing that "a reservoir [is] adapted to pass the cooling liquid therethrough"). Nothing about the patents suggests that there is a portion of the reservoir that is not involved in the fluid flow.

Finally, CoolIT's suggestion that the construction of "reservoir' should include a reference to "excess fluid created by fluid expansion" is completely unwarranted. Nothing in the patents makes mention of fluid expansion at all. Docket No. 136 (CoolIT's Resp. Br. at 7). Rather, that is one of the issues that is the subject of CoolIT's own invention, the '456 patent, not Asetek's patents.

3. "through which cooling liquid flows when the cooling system is operating"

As for the limitation proposed by Cooler Master – *i.e.*, "through which cooling liquid flows when the cooling system is operating" – the Court finds it unnecessary as it is largely redundant of the surrounding claim language. *Cf. Atser Research Techs., Inc. v. Raba-Kistner Consultants, Inc.*, No. SA-07-CA-93-H, 2009 U.S. Dist. LEXIS 25294, at *31-32 (W.D. Tex. Mar. 2, 2009) (rejecting defendant's construction of the term "client computer" because it "includ[ed] the surrounding words of the claim" which was "redundant and unnecessary").

4. "single receptacle"

Finally, Asetek's construction – *i.e.*, "single receptacle" – is lacking in that it does not provide any information as to what the function or purpose of a reservoir is. To the extent Asetek puts a premium on the word "single," that word is unnecessary because the fact that the claim term is "reservoir" (singular) and not "reservoirs" (plural) indicates that a reservoir is only one receptacle and not many. Also, it is clear from the surrounding claim language that a reservoir is a single receptacle made up of an upper and lower chamber (the '362 patent) or a pump chamber and a thermal exchange chamber (the '764 patent).

5. Dictionary Definition

Although a dictionary definition is extrinsic evidence, the Court concludes that it best captures what a "reservoir" is based on the language of the patents, including the specifications and

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claims. That is, a "reservoir" for purposes of the '362 and '764 patents is "a receptacle or chamber for holding a liquid or fluid." Notably, CoolIT expressly stated at the hearing that it would not object to this construction, which is a dictionary definition supplied by CoolIT in its papers. *See* Docket No. 136-4 (Ex. 4). In addition, in its papers, Asetek itself relied on a similar dictionary definition. *See* Docket No. 10 (Asetek's Op. Br. at 10) ("The dictionary definition of 'reservoir' provided by Asetek is 'a part of an apparatus in which a liquid is held.'").

B. "fluidly coupled" ('362 patent) or "coupled" ('764 patent)

Asetek	**CoolIT**	**Cooler Master**	**Court**
fluidly communicating (directly or indirectly)	connected such that fluid can flow directly from one element into the other	[same as CoolIT]	fluidly connected

The parties agree that the term "fluidly coupled" or "coupled" does not appear anywhere in the specifications of the two patents at issue – *i.e.*, the term shows up only in the claims. As to the claims, the term "fluidly coupled" or "coupled" basically shows up in two different contexts:

- The fluid coupling of the two chambers in the reservoir; and
- The fluid coupling of the reservoir to the heat radiator (*i.e.*, fan).

See, e.g., '362 patent, claim 1 (describing "the reservoir including an upper chamber and a lower chamber, the upper chamber and the lower chamber being vertically displaced chambers that are separated from each other by at least a horizontal wall and fluidly coupled together by a plurality of substantially circular passages"); '362 patent, claim 1 (describing "a heat radiator spaced apart from the integrated element, the heat radiator being fluidly coupled to the outlet and inlet of the reservoir"); '764 patent, claim 1 (describing "the pump chamber and the thermal exchange chamber being separate chambers that are fluidly coupled together by the one or more passages"); '764 patent, claim 1 (describing "a heat radiator fluidly coupled to the reservoir").

The basic dispute between the parties is whether "coupled" should be construed to require a direct connection (Defendants' position) whether "coupled" should be more broadly construed to cover either a direct or an indirect connection (Asetek's position).

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Looking at the phrase "coupled" in isolation, the Court agrees with Asetek that "common usage of the term . . . supports both direct and indirect connections." *Silicon Image, Inc. v. Genesis Microchip, Inc.*, No. 3:01cv266, 2002 U.S. Dist. LEXIS 28916, at *88 (E.D. Va. Dec. 10, 2002). Furthermore, the fact that the specifications of the patents show only direct connections is not dispositive. "[E]ven where a patent describes *only a single embodiment*, claims will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction." *Innova/Pure Water, Inc. v. Safari Water Filtration Sys.*, 381 F.3d 1111, 1117 (Fed. Cir. 2004) (internal quotation marks omitted; emphasis added); *see also Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1328 (Fed. Cir. 2002) (noting that "[t]he record is devoid of 'clear statements of scope' limiting the term appearing in claim 1 to having 'a single pair of legs'")

The case cited by Cooler Master – *In re Abbott Diabetes Care Inc.*, 696 F.3d 1142 (Fed. Cir. 2012) – is not to the contrary. There, the court held that the PTO erred in broadly construing the claim "electrochemical sensor" to include sensors with external wires and cable leads because (1) "every embodiment disclosed in the specification shows an electrochemical sensor without external cables or wires" *and* (2) "the specification contains only disparaging remarks with respect to the external cables and wires of the prior-art sensors." *Id.* at 1149. No such disparagement of indirect coupling is contained in the specification at issue in the case at bar.

Thus, in principle, the Court concludes that the term "coupled" – in isolation – could support either direct or indirect connections.

That being said, the term "coupled" as used in the patents is not in isolation but is usually accompanied by a phrase specifying the means of the connection. For example, claim 1 of the '362 patent describes "the reservoir including an upper chamber and a lower chamber, the upper chamber and the lower chamber being vertically displaced chambers that are separated from each other by at least a horizontal wall and fluidly coupled together *by a plurality of substantially circular passages*." '362 patent, claim 1 (emphasis added). Where the means of connection are specified, the Court concludes that that is the exclusive means by which the coupling can be accomplished. Thus, for claim 1 of the '362 patent, the chambers must only be connected by a plurality of

substantially circular passages and nothing more. The heat radiator, for example, could not be inserted as a part of the connection without violating the language of the claim. *See* Docket No. 136 (CoolIT's Resp. Br. at 12) ("Asetek amended its infringement contentions to argue that the two separate chambers could be 'coupled' – indirectly – through the outlet tube, *the radiator*, and the inlet tube.")[2] (emphasis added).

Notably, the court in *City of Aurora v. PS Systems, Inc.*, No. 07-cv-2371-PAB-BNB, 2010 U.S. Dist. LEXIS 61935 (D. Colo. June 2, 2010), reached a similar conclusion when presented with a similar set for facts. In *Aurora*, the court examined, *inter alia*, a claim that specified that the patented system included "'at least one aquifer well coupled to the underground reservoir *by piping*.'" *Id.* at *41. The court took note that

> [t]he parties first disagree about the implications of the term "coupled." The City of Aurora insists that, in the context of this patent, the term "couple" signifies a direct connection between the aquifer well and the underground water storage reservoir. Defendant patentees, citing to a District of Delaware case, urge that the connection may be direct or indirect and, in fact, may be so indirect as to encompass infiltration ditches and ponds above the underground reservoir [*e.g.*, an infiltration pond could establish the necessary link between the aquifer well and the reservoir].

Id. at *41-42. The court ultimately found in the city's favor rather than the defendant-patentees', explaining as follows:

> There are two cases, of which the Court is aware, which define the term "coupled." The case cited by defendants, *Silicon Graphics, Inc. [v. nVidia Corp.]*, held that "the ordinary meaning [of couple] in this context is 'coupled or connected, directly or indirectly.'" 58 F. Supp. 2d at 346. In *Bradford Co. v. ConTeyor North America, Inc.*, 603 F.3d 1262, 2010 WL 1711307, at *3, 6-7 (Fed. Cir. 2010), the Federal Circuit recently held that the phrase "coupled to" means "linked together, connected or joined" and often deserves a broad construction to include indirect means of connection.

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[2] To the extent Asetek relies on the Tilton declaration to assert that there could be indirect coupling via the radiator, *see* Docket No. 148 (Tilton Decl. ¶ 9) (emphasis added), the Court rejects that reliance for several reasons. First, Asetek failed to identify Dr. Tilton as a witness in the parties' Joint Claim Construction and Prehearing Statement. *See* Pat. L.R. 4-3(e) (providing that, in the parties' Joint Claim Construction and Prehearing Statement, they are to include information as to "[w]hether any party proposes to call one or more witnesses at the Claim Construction Hearing, the identity of each such witness, and for each witness, a summary of his or her testimony, including for any expert, each opinion to be offered related to claim construction"). Second, Dr. Tilton's opinion is directly contrary to the language of the claims which mentions coupling via passages only, and nothing more.

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> The distinction between a direct and an indirect connection, which was the focus in *Bradford* and *Silicon Graphics, Inc.*, is not particularly helpful in the present case. Both of those cases dealt with the question of whether two items would qualify as "coupled" if they were indirectly joined through a third, intermediary structure. *See Bradford Co.*, 603 F.3d 1262, 2010 WL 1711307, at *7; *Silicon Graphics, Inc.*, 58 F. Supp. 2d 331, 345-46. Unlike the patents in *Bradford* or *Silicon Graphics*, Claim 1 of the '218 Patent identifies the specific means by which the two primary items – here, the aquifer and the underground reservoir – are to be coupled. Claim 1 explains that they are coupled "by piping." The specification makes clear that "piping" includes the entire mechanical system of wells, wellheads, pumps, pump houses, valves, and pipe configurations. Additional intermediary steps or diversions may well be contemplated under Claim 1. *However, one skilled in the art would not understand "piping," as the term is used in the '218 Patent, to include infiltration ponds or infiltration ditches.* Therefore, such infiltration structures may not serve as the element which connects the underground reservoir.

Id. at *42-43 (emphasis added).

Because "coupled" in isolation could support indirect connections but "coupled" as used in the patents often specifies the means for connection, the Court concludes that a construction incorporating terms such as "direct" or "indirect" would not be helpful to the jury. Accordingly, the Court shall simply construe "fluidly coupled" to mean "fluidly connected." The parties, however, should be mindful of the Court's ruling here that, where a means of coupling is specified, that is the exclusive means of connection.

C. "substantially circular passages"

Asetek	**CoolIT**	**Cooler Master**	**Court**
generally circular passages	indefinite and lacks written description; or circular passages	indefinite and lacks written description; or circular holes	plain and ordinary meaning

As indicated by the chart above, both CoolIT and Cooler Master make an initial challenge to the term "substantially circular passages" on the ground that it is indefinite and lacks written description. *See* 35 U.S.C. § 112(a)-(b) (providing that "[t]he specification shall contain a written description of the invention" and that "[t]he specification shall conclude with one or more claims

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particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention").

The Court, however, shall not entertain invalidity arguments at this juncture of the proceedings. Invalidity defenses are usually addressed at summary judgment, not as a part of claim construction. *See, e.g., PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1307 (Fed. Cir. 2008) (stating that "[c]ompliance with the written description requirement is a question of fact [that] is amenable to summary judgment in cases where no reasonable fact finder could return a verdict for the nonmoving party"); *ASM America, Inc. v. Genus, Inc.*, No. C-01-2190 EDL, 2002 U.S. Dist. LEXIS 15348, at *42 (N.D. Cal. Aug. 15, 2002) ("conclud[ing] that the Federal Circuit's statements that indefiniteness is intertwined with claim construction mean only that the Court must attempt to determine what a claim means before it can determine whether the claim is invalid for indefiniteness, and not that the Court must determine indefiniteness during the claim construction proceedings").[3] This approach is particularly warranted given that Judge Tigar is the assigned judge for the Cooler Master case.

The Court therefore restricts itself to the issue of claim construction. Here, Asetek asks that the term "substantially circular passages" be construed as "generally circular passages," while CoolIT proposes "circular passages" and Cooler Master "circular holes."

The Court agrees with Asetek that both of Defendants' constructions are problematic because they effectively "read the word 'substantially' out of the claim." Docket No. 127 (Asetek's Op. Br. at 18). Cooler Master protests that it "does not contend that the required circle needs to be proven geometrically to be perfect to meet the claim limitation, but rather it must look circular to one of ordinary skill in the art." Docket No. 137 (Cooler Master's Resp. Br. at 17). However, Cooler Master's proposed construction of the term does not make this point clear in any way. Similarly, to the extent CoolIT argues that "[t]he claims require passages that are shaped *like* a circle, as opposed to some other geometric shape such as a square, rectangle, or triangle," Docket

[3] *Cf. 3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1333 (Fed. Cir. 2013) (stating that, "[i]n order to be indefinite, reasonable efforts at claim construction must *result in a definition* that does not provide sufficient particularity or clarity to inform a skilled artisan of the bounds of the claim") (emphasis added).

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No. 136 (CoolIT's Resp. Br. at 12) (emphasis added), its proposed construction does not suggest this point in any fashion.

The Court also rejects Cooler Master's suggestion that "passages" should be construed to mean "holes." According to Cooler Master "holes" is more readily understandable than "passages," *see* Docket No. 137 (Resp. Br. at 17), but the term "passages" is not a confusing term. Moreover, the connotation of the two words is somewhat different, and nothing in the patents suggests that "passages" and "holes" are equivalent. Because nothing in the patents indicates that "passages" suggests that it should be interpreted other than in its plain and ordinary meaning, the Court shall not construe the term any further.

Likewise, the Court need not construe the term "substantially" any further.

D. "vertically displaced chambers" ('362 patent) or "vertically spaced apart ('764 patent)"

Asetek	**CoolIT**	**Cooler Master**	**Court**
vertically arranged (with reference to each other and the heat exchanging interface) chambers	indefinite and lacks written description; or the upper chamber is farther away from the heat exchanging interface and separated from the lower chamber by at least a horizontal wall	indefinite and lacks written description; or the upper chamber/pump chamber being farther away from the heat exchanging interface, and separated from the lower chamber/heat exchanging chamber by at least a horizontal/intermediate wall	vertically arranged (with reference to each other and the heat exchanging interface) chambers

As above, the Court shall not entertain the invalidity arguments presented by Defendants.

Turning to construction, the Court finds both CoolIT and Cooler Master's constructions problematic because they, in effect, read out the "vertical" requirement. As Asetek argues, "defining a distance alone [*i.e.*, farther away] does not clarify spatial orientation." Docket No. 148 (Reply at 20); *see also* Docket No. 127 (Asetek's Op. Br. at 22) (stating that "merely stating the upper/pump chamber is 'farther away from the heat exchanging interface' does not provide the

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directional orientation that would assist a jury in understanding 'vertically' in the claims"). To the extent CoolIT and Cooler Master's concern is that Asetek is trying to avoid a construction that puts the lower/thermal exchange chamber closer to the heat exchanging interface, that concern is unwarranted. Asetek does not dispute that that has to be the case. *See* Docket No. 148 (Reply at 19-20) (arguing that it "has never taken the position" that the two chambers could be transposed; also stating that the lower/thermal exchange chamber "contains the heat exchange interface"). In any event, the claims on their face demand such. *See, e.g.*, '362 patent, claim 1 (referring to "a boundary wall of the lower chamber being formed by the heat exchanging interface")

Finally, CoolIT and Cooler Master's constructions which make reference to a separation by a horizontal or intermediate wall are not appropriate because, as Asetek notes, (1) for the '362 patent, such language is "redundant of other claim language, which already states the upper and the lower chambers are 'separated . . . by at least a horizontal wall.'" Docket No. 127 (Asetek's Op. Br. at 22) (quoting claim 1); and (2) for the '764 patent, there is no such limitation in the patent at all – *i.e.*, there is only a requirement that the chambers be separate. *See, e.g.*, '764 patent, claim 1 (making no reference to a horizontal or intermediate wall).

Accordingly, the Court adopts Asetek's construction as the more appropriate construction.

E. "horizontally spaced apart"

Asetek	**CoolIT**	**Cooler Master**	**Court**
spaced apart in the horizontal direction (with reference to the vertically displaced/spaced apart chambers)	plain ordinary meaning	indefinite and lacks written description; or being placed at different locations on a horizontal plane	spaced apart in the horizontal direction (with reference to the vertically displaced/spaced apart chambers)

As above, the Court shall not entertain the invalidity arguments presented by Defendants.

Turning to construction, the Court takes note that the main dispute here is really between Asetek and Cooler Master. That dispute boils down to whether "horizontal" means exactly horizontal (*i.e.*, on the same horizontal plane). Cooler Master takes this position, while Asetek maintains that horizontal could also mean, in effect, "roughly" horizontal. The "horizontal"

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relationship at issue is that between the "reservoir . . . at a first location" and "a heat radiator . . . at a second location." '764 patent, claim 14 (referring to a "heat radiator configured to be positioned at a second location horizontally spaced apart from the first location").

Cooler Master's position is dependent on the premise that both the reservoir and radiator are located on the motherboard – *i.e.*, Cooler Master asserts that, because the motherboard is a board and because both the reservoir and radiator must be on the motherboard, the reservoir and radiator must be exactly horizontal from one another. *See* Docket No. 137 (Cooler Master's Resp. Br. at 18).

The problem for Cooler Master is that there is limited support for its contention that the radiator must be on the motherboard. For example, although Cooler Master takes the position that the language of claim 14 of the '362 patent supports its position, the Court does not agree. Claim 14 of the '362 patent provides in relevant part as follows:

> **14.** A cooling system for a processing unit positioned on a motherboard of a computer, comprising:
>
> a reservoir configured to be coupled to the processing unit positioned on the motherboard at a first location . . .
>
> a heat radiator configured to be positioned at a second location horizontally spaced apart from the first location when the reservoir is coupled to the processing unit . . . .

In its papers, Cooler Master argues that "[t]he use of 'second' as the modifier in relation to the 'first' location on the motherboard compels a conclusion that the second location must also be on the motherboard." Docket No. 137 (Cooler Master's Resp. Br. at 18). But Cooler Master has not read the text of claim 14 correctly. Claim 14 does not refer to a CPU (central processing unit) positioned at a "first location on the motherboard." Rather, claim 14 describes a CPU positioned "on the motherboard at a first location." Thus, claim 14 simply reflects that the motherboard is at a first location, not that there is a first and second location on the motherboard. Thus, consistent with the claim language, the radiator could be at a second location apart from the motherboard.

In addition, FIG. **8** of the '362 patent suggests that the radiator does not have to be on the same exact horizontal plane as the reservoir. *See* '362 patent, FIG. **8**.

Cooler Master's best argument is based on the prosecution history, but even here there are problems. In its responsive brief, Cooler Master points out that,

> [i]n the March 21, 2012 Reply to Office action, the [patent] applicant amended claims 83 and 86 (which were later issued as claims 14 and 17 of the '362 patent) in order to overcome the examiner's rejection. In the response, the inventor explained that "amended independent claim 83 recites a cooling system for a processing unit positioned on a motherboard of a computer, including a reservoir configured to be coupled to the processing unit positioned on the motherboard at a first location, . . . , and a heat radiator configured to be positioned *at a second location of the motherboard* horizontally spaced apart from the first location when the reservoir is coupled to the processing unit."

Docket No. 137 (Cooler Master's Resp. Br. at 19) (emphasis in original); *see also* Docket No. 137-7 (Carman Decl., Ex. E) (Reply to Office Action at 5-7, 12-13).

While "'the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be,'" *Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282, 1289 (Fed. Cir. 2009), here, the added language regarding a second location of the motherboard was deleted before issuance of the patent (a point that no party contests). Admittedly, there is nothing in the record as to why this language was deleted. However, as a matter of common sense, the deletion seems unremarkable – *i.e.*, while the CPU must be on the motherboard (and thus the reservoir/heat exchanging interface which are attached to the CPU), there is no obvious or apparent functional need for the heat radiator to be on the motherboard as well. Indeed, because the heat radiator and its fan must exhaust heat from within a chassis to the outside, it would make little sense to require the radiator and fan to be placed on the motherboard rather than mounted, *e.g.*, on the chassis wall. In any event, the lack of any reason for the deletion simply makes the prosecution history ambiguous at best. The Federal Circuit has expressly held that "[i]t is inappropriate to limit a broad definition of a claim term based on prosecution history that is itself ambiguous." *Inverness Medical Switzerland GmbH v. Warner Lambert Co.*, 309 F.3d 1373, 1382 (Fed. Cir. 2002); *see also Harris Corp. v. Federal Express Corp.*, 502 Fed. Appx. 957, 964 (Fed. Cir. 2013) (stating that, "[a]s a general rule, prosecution history cannot overcome the natural reading of the claim when the alleged disavowal is ambiguous"); *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1306 (Fed. Cir. 2003) (stating that, "'[a]lthough [it] is correct that the prosecution history is always relevant to claim construction, it is

also true that the prosecution history may not be used to infer the intentional narrowing of a claim absent the applicant's clear disavowal of claim coverage'").

Accordingly, the Court adopts the construction proposed by Asetek, and not Cooler Master. The Court declines to rest on plain and ordinary meaning as proposed by CoolIT as here there is ambiguity as to whether "horizontal" means exactly horizontal.

IV. CONCLUSION

The disputed claim terms of the patents-in-suit are hereby construed as set forth above.

IT IS SO ORDERED.

Dated: December 3, 2013

EDWARD M. CHEN
United States District Judge

United States District Court
For the Northern District of California