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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

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

No. C-12-4498 EMC

Plaintiffs,

AND

v.

No. C-13-0457 JST

COOLIT SYSTEMS INC.,

**ORDER RE CLAIM CONSTRUCTION
FOR ASETEK’S PATENTS**

Defendant.

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.

I. LEGAL STANDARD

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

8 Words of a claim are generally given their ordinary and customary
9 meaning, which is the meaning a term would have to a person of
10 ordinary skill in the art after reviewing the intrinsic record at the time
11 of the invention. “In some cases, the ordinary meaning of claim
12 language . . . may be readily apparent even to lay judges, and claim
13 construction in such cases involves little more than the application of
14 the widely accepted meaning of commonly understood words.”
15 However, in many cases, the meaning of a claim term as understood
16 by persons of skill in the art is not readily apparent.

13 *Id.*

14 Because the meaning of a claim term as understood by persons of skill
15 in the art is often not immediately apparent, and because patentees
16 frequently use terms idiosyncratically, the court looks to “those
17 sources available to the public that show what a person of skill in the
18 art would have understood disputed claim language to mean.” Those
19 sources include “the words of the claims themselves, the remainder of
20 the specification, the prosecution history, and extrinsic evidence
21 concerning relevant scientific principles, the meaning of technical
22 terms, and the state of the art.”

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

II. REPRESENTATIVE CLAIMS

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25 As noted above, the two Asetek patents in suit are the ‘362 patent and the ‘764 patent.
26 Although the two patents are not directly related, the parties have agreed that “certain similar claim
27 terms in the two patents should be construed to have the same meaning.” Docket No. 127 (Mot. at
28 3).

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

3 A. Claim 1 of the '363 Patent

4 1. A cooling system for a computer system processing unit,
5 comprising:

6 an integrated element including a heat exchanging interface, a
7 **reservoir**, and a pump, wherein

8 the reservoir is configured to receive a cooling liquid
9 from outside the reservoir through an inlet and pass the cooling liquid
10 to the outside through an outlet, the reservoir including an upper
11 chamber and a lower chamber, the upper chamber and the lower
12 chamber being **vertically displaced chambers** that are separated from
13 each other by at least a horizontal wall and **fluidly coupled** together
14 by a plurality of **substantially circular passages**, at least one of the
15 plurality of substantially circular passages being positioned on the
16 horizontal wall, a boundary wall of the lower chamber being formed
17 by the heat exchanging interface;

18 the heat exchanging interface is adapted to provide
19 separable thermal contact between the processing unit and the cooling
20 liquid such that the heat is dissipated from the processing unit to the
21 cooling liquid as the cooling liquid passes through the lower chamber
22 of the reservoir; and

23 the pump is adapted to direct the cooling liquid through
24 the upper chamber and the lower chamber of the reservoir, the pump
25 including a motor having a rotor, a stator and an impeller having a
26 plurality of curved blades, the impeller being positioned within the
27 reservoir;

28 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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1 B. Claim 14 of the '362 Patent

2 **14.** A cooling system for a processing unit positioned on a
3 motherboard of a computer, comprising:

4 a **reservoir** configured to be coupled to the processing unit
5 positioned on the motherboard at a first location, the reservoir being
6 adapted to pass a cooling liquid therethrough, wherein the reservoir
7 includes an upper chamber and a lower chamber, the upper chamber
8 and the lower chamber being separate chambers containing cooling
9 liquid that are separated by at least a horizontal wall and **fluidly**
10 **coupled** together by one or more passageways, at least one of the one
11 or more passageways being a **substantially circular passageway**
12 positioned on the horizontal wall, the reservoir further including a heat
13 exchanging interface configured to be placed in separable thermal
14 contact with the processing unit, the heat exchanging interface being
15 removably attached to the reservoir such that the heat exchanging
16 interface forms a boundary wall of the lower chamber of the reservoir;

17 a heat radiator configured to be positioned at a second location
18 **horizontally spaced apart** from the first location when the reservoir
19 is coupled to the processing unit;

20 a fan adapted to direct air to the heat radiator to dissipate heat
21 from the cooling liquid to surrounding atmosphere;

22 a pump configured to circulate the cooling liquid between the
23 reservoir and the heat radiator, the pump including a motor having a
24 rotor, a stator, and an impeller having curved blades, the impeller
25 being mechanically coupled to the rotor and at least partially
26 submerged in the cooling liquid in the reservoir, wherein a speed of
27 the impeller is configured to be varied independent of the speed of the
28 fan.

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1 C. Claim 1 of the '764 Patent

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

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

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

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

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

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

24 a heat radiator fluidly coupled to the reservoir and configured
25 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

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

3 ‘362 patent, col. 10:52-59 (emphasis added); ‘764 patent, col. 13:18-25 (stating the same); *see also*
4 ‘362 patent, col. 2:25-35 (stating that, in the preferred embodiment, “the pump is placed inside the
5 reservoir” and that “[i]n an alternative embodiment the pump is placed outside the reservoir in the
6 immediate vicinity of the reservoir” – with both placements making “the element . . . easy to employ
7 in new and existing computer systems”); 764 patent, col. 2:20-31 (making a similar point).

8 2. “not in normal fluid flow and available to accommodate fluid expansion”

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

13 FIG. 3 shows another embodiment of a prior art cooling
14 system. The figure shows the typical components in a liquid-cooling
15 type CPU cooling arrangement. The figure shows a prior art heat
16 exchanger 7, which is in connection with a prior art liquid reservoir 8,
17 a prior art liquid pump 9 and a heat radiator 11 and an air fan 10
18 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.*

19 ‘362 patent, col. 8:5-17; ‘764 patent, col. 10:37-49 (emphasis added).

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

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

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

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

11 3. “through which cooling liquid flows when the cooling system is operating”

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

18 4. “single receptacle”

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

26 5. Dictionary Definition

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

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

7 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

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

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

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

25 The basic dispute between the parties is whether “coupled” should be construed to require a
 26 direct connection (Defendants’ position) whether “coupled” should be more broadly construed to
 27 cover either a direct or an indirect connection (Asetek’s position).

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

12 The case cited by Cooler Master – *In re Abbott Diabetes Care Inc.*, 696 F.3d 1142 (Fed. Cir.
13 2012) – is not to the contrary. There, the court held that the PTO erred in broadly construing the
14 claim “electrochemical sensor” to include sensors with external wires and cable leads because (1)
15 “every embodiment disclosed in the specification shows an electrochemical sensor without external
16 cables or wires” *and* (2) “the specification contains only disparaging remarks with respect to the
17 external cables and wires of the prior-art sensors.” *Id.* at 1149. No such disparagement of indirect
18 coupling is contained in the specification at issue in the case at bar.

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

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

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

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

11 [t]he parties first disagree about the implications of the term
 12 “coupled.” The City of Aurora insists that, in the context of this
 13 patent, the term “couple” signifies a direct connection between the
 14 aquifer well and the underground water storage reservoir. Defendant
 15 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].

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

18 There are two cases, of which the Court is aware, which define
 19 the term “coupled.” The case cited by defendants, *Silicon Graphics,*
 20 *Inc. [v. nVidia Corp.]*, held that “the ordinary meaning [of couple] in
 21 this context is ‘coupled or connected, directly or indirectly.’” 58 F.
 22 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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 24 ² To the extent Asetek relies on the Tilton declaration to assert that there could be indirect
 25 coupling via the radiator, *see* Docket No. 148 (Tilton Decl. ¶ 9) (emphasis added), the Court rejects
 26 that reliance for several reasons. First, Asetek failed to identify Dr. Tilton as a witness in the
 27 parties’ Joint Claim Construction and Prehearing Statement. *See* Pat. L.R. 4-3(e) (providing that, in
 28 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

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

3 The Court, however, shall not entertain invalidity arguments at this juncture of the
4 proceedings. Invalidity defenses are usually addressed at summary judgment, not as a part of claim
5 construction. *See, e.g., PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1307 (Fed. Cir.
6 2008) (stating that “[c]ompliance with the written description requirement is a question of fact [that]
7 is amenable to summary judgment in cases where no reasonable fact finder could return a verdict for
8 the nonmoving party”); *ASM America, Inc. v. Genus, Inc.*, No. C-01-2190 EDL, 2002 U.S. Dist.
9 LEXIS 15348, at *42 (N.D. Cal. Aug. 15, 2002) (“conclud[ing] that the Federal Circuit’s statements
10 that indefiniteness is intertwined with claim construction mean only that the Court must attempt to
11 determine what a claim means before it can determine whether the claim is invalid for
12 indefiniteness, and not that the Court must determine indefiniteness during the claim construction
13 proceedings”).³ This approach is particularly warranted given that Judge Tigar is the assigned judge
14 for the Cooler Master case.

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

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

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27 ³ *Cf. 3M Innovative Proprs. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1333 (Fed. Cir. 2013)
28 (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).

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

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

10 Likewise, the Court need not construe the term “substantially” any further.

11 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

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

23 Turning to construction, the Court finds both CoolIT and Cooler Master’s constructions
24 problematic because they, in effect, read out the “vertical” requirement. As Asetek argues,
25 “defining a distance alone [*i.e.*, farther away] does not clarify spatial orientation.” Docket No. 148
26 (Reply at 20); *see also* Docket No. 127 (Asetek’s Op. Br. at 22) (stating that “merely stating the
27 upper/pump chamber is ‘farther away from the heat exchanging interface’ does not provide the
28

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

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

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

17 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)

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

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

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

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

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

12 **14.** A cooling system for a processing unit positioned on a
13 motherboard of a computer, comprising:

14 a reservoir configured to be coupled to the processing unit
15 positioned on the motherboard at a first location . . .

16 a heat radiator configured to be positioned at a second location
17 horizontally spaced apart from the first location when the reservoir is
18 coupled to the processing unit

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

27 In addition, FIG. 8 of the ‘362 patent suggests that the radiator does not have to be on the
28 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,

1 [i]n the March 21, 2012 Reply to Office action, the [patent] applicant
2 amended claims 83 and 86 (which were later issued as claims 14 and
3 17 of the '362 patent) in order to overcome the examiner's rejection.
4 In the response, the inventor explained that "amended independent
5 claim 83 recites a cooling system for a processing unit positioned on a
6 motherboard of a computer, including a reservoir configured to be
7 coupled to the processing unit positioned on the motherboard at a first
8 location. . . . , and a heat radiator configured to be positioned *at a*
9 *second location of the motherboard* horizontally spaced apart from the
10 first location when the reservoir is coupled to the processing unit."

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

13 While "the prosecution history can often inform the meaning of the claim language by
14 demonstrating how the inventor understood the invention and whether the inventor limited the
15 invention in the course of prosecution, making the claim scope narrower than it would otherwise
16 be," *Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282, 1289 (Fed. Cir. 2009), here, the added language
17 regarding a second location of the motherboard was deleted before issuance of the patent (a point
18 that no party contests). Admittedly, there is nothing in the record as to why this language was
19 deleted. However, as a matter of common sense, the deletion seems unremarkable – *i.e.*, while the
20 CPU must be on the motherboard (and thus the reservoir/heat exchanging interface which are
21 attached to the CPU), there is no obvious or apparent functional need for the heat radiator to be on
22 the motherboard as well. Indeed, because the heat radiator and its fan must exhaust heat from within
23 a chassis to the outside, it would make little sense to require the radiator and fan to be placed on the
24 motherboard rather than mounted, *e.g.*, on the chassis wall. In any event, the lack of any reason for
25 the deletion simply makes the prosecution history ambiguous at best. The Federal Circuit has
26 expressly held that "[i]t is inappropriate to limit a broad definition of a claim term based on
27 prosecution history that is itself ambiguous." *Inverness Medical Switzerland GmbH v. Warner*
28 *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

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


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

6 **IV. CONCLUSION**

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

8
9 IT IS SO ORDERED.

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11 Dated: December 3, 2013

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13 _____
14 EDWARD M. CHEN
15 United States District Judge
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United States District Court
For the Northern District of California