

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

United States District Court
Northern District of California

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

ASETEK DANMARK A/S,

Plaintiff,

v.

COOLIT SYSTEMS INC, et al.,

Defendants.

Case No. [19-cv-00410-EMC](#)

ORDER GRANTING IN PART AND DENYING IN PART DEFENDANTS’ MOTION FOR SUMMARY JUDGMENT; AND GRANTING IN PART AND DENYING IN PART PLAINTIFF’S MOTION FOR PARTIAL SUMMARY JUDGMENT

Docket Nos. 387, 394

I. INTRODUCTION

Plaintiff Asetek Danmark AS (“Asetek”) filed suit against CoolIT Systems, Inc. and its subsidiaries, and Corsair Gaming, Inc. and its U.S. subsidiaries (collectively “CoolIT”), asserting that CoolIT infringed and continues to infringe five of its patents — *i.e.*, the ‘601, ‘196, ‘362, ‘354 and ‘355 patents (collectively “CoolIT Patents”). CoolIT counterclaimed, alleging that Asetek infringed four of CoolIT’s patents — *i.e.*, the ‘330, ‘284, ‘266, and ‘567 patents. All of the allegedly infringed patents relate to liquid cooling systems and methods for cooling heat-generating electronic components. Both parties move for summary judgment. For the reasons stated below, the Court **GRANTS IN PART** Asetek’s Motion for summary judgment for validity of the ‘362 Patent and **DENIES IN PART** the Motion for noninfringement of the CoolIT Patents. The Court **DENIES IN PART** CoolIT’s Motion for summary judgment for validity of the CoolIT Patents and **GRANTS IN PART** the Motion for noninfringement of the ‘362 Patent.

1 A. Factual & Procedural Background

2 On January 23, 2019, Asetek filed this lawsuit against CoolIT. *See* Docket No. 1.
 3 Asetek’s patented combination of a pump, a dual-chambered reservoir, and a cold plate into a
 4 single pump unit allows improved efficiency and compactness that enables the pump unit to be
 5 installed directly on the CPU/GPU of a computer motherboard, graphics card, or a server, have
 6 decreased risk of coolant leakage, is easy to install and use, is simpler, and less costly. Docket No.
 7 228 (SAC) at 4. CoolIT counterclaimed on April 11, 2019, alleging that Asetek’s Gen 4, Gen 5,
 8 Gen 6, and Gen 7 products infringe its own patents — *i.e.*, the ‘330, ‘284, ‘266, and ‘567
 9 patents—which claim a fluid heat exchanger. *See* Docket No. 23; Docket No. 333 (Fourth
 10 Amended Counterclaim) at 14.

11 On December 22, 2020, this Court issued a minute order consolidating this case with the
 12 related case of *Asetek Danmark A/S v. Corsair Gaming, Inc. et al.*, Case No. 3:20-cv-06541-EMC,
 13 which asserted many of the same patents as this case. *See* Docket No. 207 at 1; SAC at 2-4.
 14 Therefore, the consolidated complaint (“SAC”) alleges infringement against CoolIT and Corsair, a
 15 provider of gaming and streaming products. *See* SAC.

16 The ‘354 and ‘355 patents were later found unpatentable by the Patent Trial and Appeal
 17 Board (“PTAB”), and Asetek appealed to the Federal Circuit. *See* Docket No. 380 (Order to Stay)
 18 at 3, n.2; Docket No. 465 (Joint Case Management Statement) at 5. There is a pending *inter*
 19 *partes review* (“IPR”) of the ‘601 and ‘196 patents. Joint Case Management Statement at 3. On
 20 September 30, 2021 and October 12, 2021, the ‘567 patent and some claims of the ‘266 Patents
 21 were found unpatentable by the PTAB and are subject to an appeal. *Id.* This Court granted a
 22 partial stay of litigation on February 10, 2022 as to Asetek’s ‘354, ‘355, ‘601, and ‘196 patents
 23 and CoolIT’s ‘567 patent, pending inter partes review of the ‘601 and ‘196 patents. *See* Order to
 24 Stay at 1. The stay did not affect the litigation as to Asetek’s ‘362 Patent and CoolIT’s ‘330, ‘284,
 25 and ‘266 Patents currently at issue as they are not presently subject to IPR. *See id.*

26 B. The ‘362 Patent

27 The ‘362 Patent claims an invention over prior art liquid cooling systems that were often

1 Docket No. 1-1 (the ‘362 Patent) at 1:41-49. Asetek overcame this problem with a small and
 2 compact design that is more efficient, easy to use and implement, and requires a low level of
 3 maintenance. *Id.* at 1:53-52.

4 Only claims 17 and 19 are at issue in this case:

5 17. A method of operating a liquid cooling system for an electronic
 6 component positioned on a motherboard of a computer system,
 comprising:

7 separably thermally coupling a heat exchanging interface of a
 8 reservoir with the electronic component positioned at a first location
 9 on the motherboard, the **reservoir including an upper chamber
 and a lower chamber**, the upper chamber and the lower chamber
 10 being separate chambers that are vertically spaced apart and
 11 separated by at least a horizontal wall, the upper chamber and the
 12 lower chamber being fluidly coupled by one or more passageways,
 at least one of the one or more passageways being positioned on the
 horizontal wall, the heat exchanging interface being removably
 coupled to the reservoir such that an inside surface of the heat
 exchanging interface is exposed to the lower chamber of the
 reservoir;

13 positioning a heat radiator at a second location horizontally spaced
 14 apart from the first location, the heat radiator and the reservoir being
 15 fluidly coupled together by tubing that extends from the first
 location to the second location;

16 activating a pump to circulate a cooling liquid through the
 17 reservoir and the heat radiator, the pump including a motor and **an
 impeller having curved blades**, the impeller being positioned in the
 18 reservoir; and

19 activating a fan to direct air through the heat radiator, the fan being
 operated by a motor separate from the motor of the pump.

20 18. The method of claim 17, wherein activating the pump includes
 21 circulating the cooling liquid between the upper and the lower
 chambers of the reservoir.

22 19. The method of claim 18, wherein circulating the cooling liquid
 23 between the upper and the lower chambers includes passing the
 24 cooling liquid from the upper chamber to the lower chamber through
 a single passageway of the one or more passageways.

25 ‘362 Patent, Claims 17-19.

26 Asetek’s claimed invention has several notable features, including “an impeller having a
 27 plurality of curved blades” and a single-receptacle “reservoir including an upper and a lower
 28 chamber” contained within it which circulates cooling liquid to keep computer chips from

1 overheating. *See id.* These limitations overcame prior art. Docket No. 387-3, Ex. 2 (U.S. Patent
 2 No. 7,971,632 file history) (adding “curved blades”); *see also Asetek Danmark A/S v. CMI USA*
 3 *Inc.*, 852 F.3d 1352, 1357–58 (Fed. Cir. 2017) (“[T]he jury found that the claimed liquid-cooling
 4 systems differ from the prior art . . . because the ‘reservoir’ is a ‘single receptacle that is divided
 5 into an upper chamber and a lower chamber.’”). The parties and this Court previously construed
 6 “chamber” as “compartment(s) within the reservoir” and “reservoir” as a “single receptacle
 7 defining a fluid flow path.” Docket No. 67 (Joint Claim Construction Statement) at 2-3; Docket
 8 No. 237 at 3, Docket No. 258 (Claim Construction Order) at 5. Furthermore, the parties stipulated
 9 to the following:

- 10 1. The claimed “reservoir” in Asetek’s invention is a single
 11 receptacle that is divided into an upper chamber and a lower
 12 chamber, with the upper chamber providing the pumping function
 13 and the lower chamber providing the thermal exchange function.
- 14 2. Prior art devices included a pump, a single-chamber reservoir (as
 15 that term was used in the prior art), and a cold plate as separate
 16 components that were connected using tubing or attached together
 17 with clips or screws or permanently coupled.
- 18 3. Asetek’s patent claims are directed to a liquid cooling device
 19 comprising a dual chambered reservoir bounded by a heat -
 20 exchanging interface.

21 Docket No. 342 (Estoppel Joint Statement) at 2.

22 1. The CMI Case

23 Asetek previously asserted the ‘362 Patent (and related U.S. Patent No. 8,245,764) in an
 24 unrelated action against Cooler Master (“CMI”). *See Asetek Danmark A/S v. CMI USA, Inc.*, Case
 25 No. 4:13-cv-00457-JST (hereinafter the “CMI case”). Represented by the same counsel as in the
 26 current case, Asetek argued that the patents were not invalid over the prior art because the ‘362
 27 Patent’s “reservoir” limitation required a single receptacle while prior art Ryu disclosed two
 28 separate receptacles attached together. *See CMI USA Inc.*, 852 F.3d at 1357–58. The jury agreed
 with Asetek and found the ‘362 Patent valid over Ryu. *Asetek Danmark A/S v. CMI USA, Inc.*,
 No. 13-CV-00457-JST, 2015 WL 5568360, at *2 (N.D. Cal. Sept. 22, 2015), *aff’d in part*,
remanded in part, 842 F.3d 1350 (Fed. Cir. 2016), *opinion modified and superseded on reh’g*, 852

1 The jury found the following key differences between the ‘362 Patent and the prior art:

2 Rather than connecting together multiple separate components (as in
3 the prior art), Asetek’s patented pump head design combines, into a
4 single unit, a pump and the claimed “reservoir” that has, among
5 other things, dual chambers and is bounded by a removable cold
6 plate. Also, the claimed “reservoir” in Asetek’s invention is a single
7 receptacle that is divided into an upper chamber and a lower
8 chamber, with the upper chamber providing the pumping function
9 and the lower chamber providing the thermal exchange function.

7 *Id.* The Federal Circuit affirmed. *See CMI USA Inc.*, 852 F.3d at 1357–58.

8 Thereafter in a motion for contempt sanctions, Asetek argued that CMI’s product with two
9 separate and separable receptacles infringed the ‘362 Patent, claiming that the single receptacle
10 reservoir argument was not the “crucial distinction” from the prior art. *See Asetek Danmark A/S v.*
11 *CoolIT Sys. Inc.*, No. 19-CV-00410-EMC, 2022 WL 74160, at *4 (N.D. Cal. Jan. 7, 2022). Upon
12 this attempt to argue that a device with multiple separable receptacles can satisfy the single
13 receptacle reservoir limitation in the CMI case, CoolIT sought leave to amend answers to add
14 collateral and judicial estoppel defenses in the current action. *Id.* This Court granted the
15 amendment and noted that “should Asetek now argue in the instant case that a reservoir
16 encompasses multiple receptacles like it did at the July 27, 2021 *CMI USA Inc.* hearing, this
17 argument would appear to be inconsistent with its previous argument in *CMI USA Inc.* that a
18 reservoir limitation requires a single receptacle.” *Id.* at *9.

19 C. The ‘266, ‘330, and ‘284 Patents

20 Eleven claims across the ‘330, ‘284, and ‘266 Patents remain, each reciting or depending
21 on an independent claim that recites a “plate” and a “plurality of [fins/walls]” defining a
22 “corresponding plurality of microchannels”:

23 13. A fluid heat exchanger for cooling an electronic device, the heat
24 exchanger comprising:

25 a plurality of walls defining a corresponding plurality of
26 **microchannels**, wherein each microchannel extends from a first end
27 to a second end;

28 **a plate** overlying the walls; and

29 **a seal**, wherein the seal is a portion of the plate;

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.