NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

SKEDCO, INC., AN OREGON CORPORATION,
Plaintiff-Appellant

v.

STRATEGIC OPERATIONS, INC., A CALIFORNIA CORPORATION,
Defendant-Appellee

2016-1349

Appeal from the United States District Court for the District of Oregon in No. 3:13-cv-00968-HZ, Judge Marco A. Hernandez.

Decided: April 24, 2017

BRIAN CHUNG PARK, Stoel Rives LLP, Seattle, WA, argued for plaintiff-appellant. Also represented by STEVEN T. LOVETT, NATHAN C. BRUNETTE, KASSIM M. FERRIS, Portland, OR.

GARY LEE EASTMAN, Eastman & McCartney LLP, San Diego, CA, argued for defendant-appellee. Also represented by KENNY NGUYEN.

Before PROST, *Chief Judge,* SCHALL, and CHEN, *Circuit Judges.*

SCHALL, *Circuit Judge.*

DECISION

Skedco, Inc. ("Skedco") is the exclusive licensee of U.S. Patent No. 8,342,852 ("the '852 patent"). The '852 patent is directed to a system for simulating trauma with lifelike mannequins. The system is used in the training of medical personnel. '852 patent, 1:19–24, 3:29–41. Skedco sued Strategic Operations, Inc. ("StOps") in the United States District Court for the District of Oregon for infringement of claims 18, 19, and 20 of the patent. On December 8, 2015, the district court granted summary judgment of noninfringement, both literal and under the doctrine of equivalents, and entered judgment dismissing Skedco's complaint. *See Skedco, Inc. v. Strategic Operations, Inc.*, 154 F. Supp. 3d 1099 (D. Or. 2015). Skedco now appeals from that judgment. We *vacate* and *remand*.

DISCUSSION

I.

Claim 18 is the sole independent claim of the asserted claims. It reads as follows:

> 18. A trauma training system for replicating at least one hemorrhage, said system comprising:
>
> a collapsible reservoir having a capacity capable of storing fluid,
>
> a pump in fluid communication with the cavity of said reservoir,
>
> at least one valve in fluid communication with said pump,

> a controller connected to said pump and said at least one valve, and
>
> at least one wound site detachably in fluid communication with said valve, wherein fluid is provided to said wound site to simulate a hemorrhage.

'852 patent, 14:3–14.

Two limitations of claim 18 are pertinent to this appeal. The first is the requirement of "at least one valve in fluid communication with said pump." The second is the recitation of "a controller connected to said pump and said at least one valve." Relevant to the first limitation, the district court construed "valve" as "a device that regulates, directs, or adjusts the flow of fluid through a passageway by opening, closing, or restricting the passageway." It also construed "pump" as "a device that moves or transfers fluid by mechanical action." *Skedco*, 154 F. Supp. 3d at 1102. Relevant to the second limitation, the court construed "controller connected to" as "an activation mechanism joined, united, or linked to." *Id.*

In granting summary judgment of noninfringement in favor of StOps, the district court ruled that StOps's accused Blood Pumping System ("BPS") did not literally meet the limitation of "at least one valve in fluid connection with said pump." The court arrived at this conclusion because certain valves in the BPS are not physically separate from the pump.[1] *Id.* at 1112. Instead, these valves reside within the pump housing. *Id.* at 1108, 1112.

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[1] As the district court observed, during the relevant time period, the BPS used four different types of pumps. *See Skedco*, 154 F. Supp. 3d at 1104 n.4. We will refer to these variations collectively as a singular "pump" because no issue in this appeal turns on the differences among the pumps.

The court also ruled that the BPS did not literally meet the limitation of "a controller connected to said pump and said at least one valve." *Id.* at 1105–06, 1108. In the BPS, manually adjustable valves are not connected directly to a controller. *Id.* at 1107. Nor does the controller activate these manual valves. Rather, they are adjusted through manual rotation of the valve handle. *Id.* at 1104. Thus, reasoned the district court, the BPS does not have "direct," "independent," and "physical" connections between the controller and the valve such that the valve is "controlled by the controller." *Id.* at 1105–06, 1108. The court also ruled as a matter of law that claims 18, 19, and 20 were not infringed under the doctrine of equivalents. Having granted summary judgment of noninfringement, the court dismissed Skedco's complaint. This appeal followed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

II.

On appeal, Skedco focuses on the district court's construction of the two claim limitations discussed above. As far as the first limitation is concerned, Skedco urges that the district court erred when it required the valve and pump in the BPS to be physically separate. As to the second limitation, Skedco disagrees with the district court's construction of "connected to" as "joined, united or linked to." In Skedco's view, "connected to" should be construed to mean "interacts directly or indirectly with." In the alternative, Skedco contends that the district court erred when it required "direct," "independent," physical," and "separately controlling" connections between the controller and the pump and valve structures in the BPS. For these reasons, Skedco argues, the district court erred in granting summary judgment of no literal infringement by StOps's BPS.

StOps responds that the district court properly construed both claim limitations. With respect to the first

limitation, StOps urges that the intrinsic record requires the claimed "pump" and "valve" to be physically separate structures. Turning to the second limitation, StOps contends that the district court correctly construed "connected to" as requiring direct connections between the claimed components.

III.

A.

We review a district court's grant of summary judgment *de novo*. *Dynacore Holdings Corp. v. U.S. Phillips Corp.*, 363 F.3d 1263, 1273 (Fed. Cir. 2004). Summary judgment is appropriate when no genuine issues of material fact exist and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c).

Claim construction is a question of law with underlying questions of fact. *Teva Pharm. U.S.A., Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837–38 (2015). We thus review a district court's ultimate claim construction *de novo* and any underlying factual determinations involving extrinsic evidence for clear error. *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 843 F.3d 1315, 1326 (Fed. Cir. 2016). If, as in this case, the intrinsic record fully governs the proper construction of a term, we review the district court's claim construction *de novo*. *Shire Dev., LLC v. Watson Pharms., Inc.*, 787 F.3d 1359, 1364 (Fed. Cir. 2015).

B.

1.

The district court construed "at least one valve in fluid communication with said pump" to require the pump and valve to be physically separate structures. *Skedco*, 154 F. Supp. 3d at 1111–12. We hold that this was error.

Claim construction must begin and remain centered on the claim language. *Brookhill-Wilk 1, LLC v. Intuitive*

Surgical, Inc., 334 F.3d 1294, 1298 (Fed. Cir. 2003); *Storage Tech. Corp. v. Cisco Sys., Inc.*, 329 F.3d 823, 830 (Fed. Cir. 2003). Words of a claim are generally given their ordinary and customary meanings. *Philips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc). A patent's specification is also highly relevant to claim construction because it aids in the analysis and may reveal whether the patentee has used a term in a way different from its plain meaning. *Brookhill-Wilk*, 334 F.3d at 1298. Absent a clear disavowal or lexicography by a patentee, however, he or she is free to draft a claim broadly and expect the full claim scope. *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1367 (Fed. Cir. 2012).

In this case, nothing in the claims requires the pump and valve to be physically separated. The claimed valve need only be "in fluid communication with" the claimed pump. '852 patent, 14:9. Nothing prevents a pump from being "in fluid communication with" an internal valve. *See Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1232 (Fed. Cir. 2011) (declining to construe "in fluid communication" as requiring separate structures). In fact, the claims expressly contemplate this possibility. *See Philips*, 415 F.3d at 1314. Independent claim 1 recites a "pump in fluid communication with [a] reservoir" wherein "said pump is *in a cavity of said reservoir*." '852 patent, 11:46–47 (emphasis added). This passage expressly envisions one device "in fluid communication with" another inside of it. Claim 18 contains no other limitation governing the structural relationship between the pump and the valve.[2] Nor has StOps alleged that the

[2] Claim 18 does recite a "controller" that is "connected to said pump and said at least one valve," '852 patent, 14:10–11, but we read this limitation as governing

intrinsic record provides an express definition or disavowal that would limit the terms "pump" and "valve" to separate structures.

Our construction is also consistent with the district court's constructions of the individual terms "pump" and "valve." To paraphrase the district court, a "pump" moves fluid and a "valve" regulates fluid flow. *See Skedco*, 154 F.3d at 1102. Skedco and StOps agree with these constructions. J.A. 2009–11. We see no reason why a device that moves fluid cannot contain another device that regulates flow within it. A pump does not cease moving fluid—*i.e.*, being a "pump"—just because an internal valve adjusts fluid flow. Indeed, the specification of the '852 patent explains why it would be natural to have such an arrangement. The patent teaches that "[e]xemplary valves 124 include . . . a check valve" that can "prevent fluid backflow when the direction of the flow for the fake blood is up from the check valve." '852 patent, 4:64–67, 7:67–8:1. In short, we agree with the district court that a "pump" is not a "valve," *id.* at 1108, but nothing in the claims or specification prohibits a valve from residing within a pump.

StOps maintains the separateness of the pump and valve by pointing to various figures of the '852 patent and concluding that they "would be rendered nonsensical" if the valve were integral to the pump. Appellee Response Br. 20–21. This approach gets our precedent backwards. "[I]t is the *claims*, not the written description, which define the scope of the patent right." *Laitram Corp v. NEC Corp.*, 163 F.3d 1342, 1347 (Fed. Cir. 1998). Patents do not need to include drawings of particular embodiments in order to claim them. *See CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1367 (Fed. Cir. 2002).

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the connectedness of the pump and valve *to the controller*, not the connectedness of the pump *to the valve*.

For this reason, a claim is not limited to inventions looking like those in the drawings. *MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333 (Fed. Cir. 2007). This guidance is especially apt here because the patent refers to the drawings to which StOps points as "exemplary embodiment[s]." '852 patent, 2:42–3:15.

StOps also relies on *Becton, Dickinson & Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249 (Fed. Cir. 2010), for the proposition that separately listed claim elements are presumptively distinct, but *Becton* is distinguishable. There, we held that a "hinged arm" was distinct from a "spring means" because we specifically *construed* the terms as requiring separate structures. *Becton*, 616 F.3d at 1254. Here, nothing in the agreed-upon constructions of "pump" and "valve" forbids a pump from housing an internal valve. *See ante*, at 6–7. *Becton*'s holding was also premised on the notion that an alternative construction would have rendered the claims nonsensical and would have rendered them obvious over the prior art. 616 F.3d at 1255. This case implicates neither of these concerns.

We therefore hold that the district court erred in construing the limitation "at least one valve in fluid communication with said pump" as requiring a physically separate pump and valve. We turn now to the second limitation of claim 18 at issue in this case.

2.

Claim 18 recites "a controller connected to said pump and said at least one valve." '852 patent, 14:10–11. The district court construed this limitation as "an activation mechanism joined, united, or linked to [said pump and said at least one valve]." *Skedco*, 154 F. Supp. 3d at 1102. During its infringement analysis, however, the court further required the controller to have "direct," "independent," and "physical" connections to the pump and valve so that the pump and valve were "controlled by the

controller." *Id.* at 1105–06, 1108. We hold that it was error for the district court to have included some of these additional limitations into claim 18.

The district court's added requirements of "direct" and "independent" connections conflict with the '852 patent's specification. The patent routinely uses the verb "connect" to denote both direct and indirect linkages. *See* '852 patent, 5:28–32, 5:62–6:4, 7:44–46. In one passage, for instance, the patent teaches how valves 1241–1246 "connect *either directly* to the manifold 128' *or through* a conduit 150." *Id.*, 6:33–36 (emphases added). Sweeping both direct and indirect connections into the verb "connect" suggests that the term can embrace either meaning. *See Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 991 (Fed. Cir. 1999) ("Varied use of a disputed term in the written description demonstrates the breadth of the term rather than providing a limited definition."). This teaching also extends to the controller context. The patent describes activating valve 124 "though a controller (or remote control switch) 126" despite a lack of direct connection between the controller and the valve. *See* '852 patent, 5:48–52, fig. 3. Using "connected to" to cover indirect connections is also more consistent with the term's plain meaning. *See Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1342 (Fed. Cir. 2013) ("The ordinary meaning of 'connected to' encompasses indirect linkages."). For these reasons, we hold that the term "connected to" in the context of the '852 patent contemplates both direct and indirect connections.

As far as the district court's "physical" limitation is concerned, we see no reason to import such a requirement into claim 18. The claimed "controller" is merely "an activation mechanism," 154 F. Supp. 3d at 1102, and nothing limits this activation to physical channels. Indeed, the '852 patent includes several embodiments where a remote controller 160 activates a valve. *See* '852 patent, 5:40–45; 5:46–52, 6:55–57, 9:23–25. This activation must

occur at least in part through a nonphysical connection. *See id.*, figs.3, 9A, 9C. We therefore hold that it was error to limit the claimed connection to physical connections.

With respect to the requirement that the valve and pump must be "controlled by the controller," we think that the district court's analysis is essentially correct. In the context of claim 18, the controller is "an activation mechanism" for controlling the components connected to it. *Skedco*, 154 F. Supp. 3d at 1102. Skedco agrees, acknowledging that claim 18 "necessarily calls for the interaction in the form of *activation of the pump and valve by the controller*." Appellant Opening Br. 35 (emphasis added).

As it did before the district court, Skedco urges that "connected to" means "interacts directly or indirectly with." We agree that claim 18 expects interaction between the controller and the components connected to it, but we do not agree with Skedco's proposed verbiage. The '852 patent describes the relationship between the controller and the pump and the valve as being one of control or activation, not "interaction" more generally. *See* '852 patent, 4:42–44, 5:48–51, 6:26–29, 8:1–2, fig. 2B. Skedco itself recognizes that the controller "interacts with" the pump and valve "in the form of *activation*." Appellant's Opening Br. 35 (emphasis added). Nor does Skedco's proffered terminology find support in the specification. The patent uses the verb "interact" only once, to discuss a user "interact[ing] with" a training mannequin. '852 patent, 1:37–39. We therefore opt to construe this phrase with greater precision and more in keeping with the term's plain meaning.

In view of the foregoing, we think that the correct construction of "a controller connected to said pump and said at least one valve" is "an activation mechanism configured to control a pump and a valve to which it is directly or indirectly joined, united, or linked." This

construction reflects the parties' agreement that "controller" means "an activation mechanism." *See* Appellant Opening Br. 7–8; Appellee Response Br. 26. It is consistent with the plain meaning of "connected to" as "joined, united, or linked to." *See* Markman Order, *Skedco, Inc. v. Strategic Operations, Inc.*, 2014 WL 4385752, at *14–15 (D. Or. 2014). It also incorporates the specification's envisaged indirect connections. Finally, this construction integrates the activation operation of the controller that the district court identified, StOps seeks, and Skedco acknowledges must exist. *See* 154 F. Supp. 3d at 1107–08; Appellee Response Br. 35; Appellant Opening Br. 35.

3.

In sum, we hold that the district court erred in its construction of the limitation "at least one valve in fluid connection with said pump" and the limitation "a controller connected to said pump and said at least one valve." We therefore vacate the district court's grant of summary judgment of no literal infringement of claims 18, 19, and 20 and remand the case to the court to conduct analysis based upon the claim constructions articulated in this opinion. In so doing, we express no views on the issue of literal infringement.

4.

Skedco also appeals the district court's grant of summary judgment of noninfringement of claims 18, 19, and 20 under the doctrine of equivalents. Our rulings on claim construction and resulting vacatur of the grant of summary judgment of no literal infringement render this issue moot. We therefore vacate the district court's grant of summary judgment of noninfringement under the doctrine of equivalents and remand the case to the court for further proceedings on this issue as may be appropriate. As with literal infringement, we express no views on

the issue of infringement under the doctrine of equivalents.

CONCLUSION

For the foregoing reasons, the judgment dismissing Skedco's complaint is vacated. The case is remanded to the district court for further proceedings consistent with this opinion.

VACATED AND REMANDED

COSTS

No costs.