

**IN THE UNITED STATES COURT OF APPEALS  
FOR THE FIFTH CIRCUIT**

United States Court of Appeals  
Fif h Circuit

**FILED**

November 14, 2017

Lyle W. Cayce  
Clerk

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No. 16-11381  
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MOTION MEDICAL TECHNOLOGIES, L.L.C.; WABASH MEDICAL COM-  
PANY, L.L.C.; ORTHOFLEX, INCORPORATED, doing business as Inte-  
grated Orthopedics,

Plaintiffs - Counter Defendants - Appellees

v.

THERMOTEK, INCORPORATED,

Defendant- Counter Claimant- Third Party Plaintiff - Appellant

v.

TRI 3 ENTERPRISES, L.L.C.; THERMO COMPRESSION SOLUTIONS,  
L.L.C.; WMI ENTERPRISES, L.L.C.,

Third Party Defendants - Appellees

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THERMOTEK, INCORPORATED,

Plaintiff - Appellant

v.

MIKE WILFORD,

Defendant – Appellee

No. 16-11381

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Appeal from the United States District Court  
for the Northern District of Texas

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Before SMITH, OWEN, and HIGGINSON, Circuit Judges.

STEPHEN A. HIGGINSON, Circuit Judge:

ThermoTek, Inc. convinced a jury that Mike Wilford and his companies engaged in unfair competition and fraud in violation of Texas law. The district court, however, granted judgment as a matter of law to the defendants, concluding that federal law preempted the unfair competition claim and that ThermoTek failed to prove its damages for fraud. We affirm.

**I.**

ThermoTek designs, manufactures, and sells the VascuTherm system, which consists of a medical device and specially designed wraps that provide thermal and compression therapy. ThermoTek sells this equipment to medical goods distributors, who then sell or lease it to hospitals and clinics. Once a doctor prescribes VascuTherm, a distributor delivers it to, demonstrates it for, and fields questions from the patient. The distributor then bills the patient's insurance.

In addition to vending VascuTherm to distributors, ThermoTek trains those distributors to use and care for the unit and wraps. Distributors receive access to a password-protected portion of ThermoTek's website, user manuals, pricing data, insurance coding information, and other written materials.

Mike Wilford is an executive of several medical equipment companies, including Orthoflex, Inc., Motion Medical Technologies, LLC, and Wabash Medical Co., LLC (the Orthoflex companies). In 2008, Wilford, through his companies, began buying and distributing the VascuTherm system. As a distributor, Wilford received various ThermoTek materials, including billing codes and

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product manuals. He visited ThermoTek's facilities at least twice.

Soon after his companies started purchasing the VascuTherm system, Wilford reported problems with the product and requested information about its design, repairs, and manufacturing. ThermoTek believes these reports were pretexts for Wilford to obtain proprietary information about VascuTherm. In March 2010, the Orthoflex companies sued ThermoTek in the Northern District of Illinois, alleging breach of the products' warranties. ThermoTek alleges that Wilford used the discovery process to obtain additional proprietary information, including a non-public version of ThermoTek's § 510(k) application<sup>1</sup> to the Food and Drug Administration (FDA) for VascuTherm. Wilford eventually developed and began selling his own unit and wraps, dubbed the Recovery+ system. ThermoTek ended its relationship with Wilford in August 2010.

Three months later, in November 2010, ThermoTek sued Wilford and another of his companies, WMI Enterprises, LLC, for fraud and unfair competition in Texas state court.<sup>2</sup> Wilford removed that case to the Northern District of Texas, which then consolidated it with the related breach-of-warranty suit from Illinois. After several pretrial motions and amended pleadings, the parties tried the following to a jury:

- (1) the Orthoflex companies' counterclaim against ThermoTek for breach of express warranty;
- (2) ThermoTek's claim against Wilford for fraud;

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<sup>1</sup> See Food, Drug, and Cosmetic Act section 510(k) (codified as amended at 21 U.S.C. § 360(k)). Under this provision, the FDA may approve some medical devices without "rigorous" testing if they are "substantially equivalent" to other devices exempt from the rigorous testing requirement. *Bass v. Stryker Corp.*, 669 F.3d 501, 506–07 (5th Cir. 2012) (quoting *Riegel v. Medtronic, Inc.*, 552 U.S. 312, 317 (2008)).

<sup>2</sup> The label "unfair competition" is an "umbrella" comprising distinct causes of action under Texas law. *U.S. Sporting Prods., Inc. v. Johnny Stewart Game Calls, Inc.*, 865 S.W.2d 214, 217 (Tex. App.—Waco 1993, writ denied) ("Within the broad scope of unfair competition are the independent causes of action such as trade-secret law, 'palming off' or passing off, and misappropriation, to name only a few.").

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- (3) ThermoTek's claim against Motion Medical, Wabash Medical, and Tri 3 Enterprises LLC<sup>3</sup> for breach of contract; and
- (4) ThermoTek's claim against Wilford and Thermo Compression Solutions, LLC<sup>4</sup> for unfair competition by misappropriation.

Important for our purposes, ThermoTek's Texas common law claim of unfair competition by misappropriation was the only unfair competition claim tried to the jury. Although ThermoTek had pleaded a distinct claim for misappropriation of trade secrets, it voluntarily dismissed that claim before trial.<sup>5</sup>

The jury broke ThermoTek's way. It rejected the Orthoflex companies' warranty claim, but found for ThermoTek on the fraud, contract, and unfair competition claims. The jury also awarded ThermoTek more than \$7.5 million in damages for "lost profits." On the unfair competition claim, it awarded \$4 million for infringing unit sales and \$2 million for infringing wrap sales. On the fraud claim, it awarded \$770,000 for VascuTherm wrap sales; \$500,000 for VascuTherm unit sales; \$193,000 for additional expenses from unit repairs; \$90,000 for additional engineering costs; and \$13,000 for additional evaluation and tooling costs. (The jury awarded no damages for breach of contract.)

In response, Wilford and Thermo Compression renewed their motion for judgment as a matter of law. *See* Fed. R. Civ. P. 50.<sup>6</sup> They argued that federal copyright and patent law preempted ThermoTek's misappropriation claim, and that ThermoTek failed to prove its damages. The district court agreed and entered an amended judgment dismissing all claims with prejudice and denying all requested relief.<sup>7</sup>

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<sup>3</sup> Tri 3 is a limited liability holding company for Motion Medical and Wabash Medical.

<sup>4</sup> Thermo Compression is another medical sales company that Wilford controls.

<sup>5</sup> The district court also dismissed ThermoTek's claim for tortious interference with contractual relations for failure to state a claim, and ruled that ThermoTek's unfair competition claim was not based on trade dress infringement.

<sup>6</sup> Wilford and Thermo Compression alternatively moved for a new trial. *See* Fed. R. Civ. P. 59.

<sup>7</sup> The court conditionally denied the motion for a new trial. *See* Fed. R. Civ. P. 50(c)(1).

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ThermoTek's appeal raises three issues. The first is waiver—whether the failure to plead preemption bars that defense. Second is the preemption defense's merits—whether federal law indeed forecloses ThermoTek's unfair competition claim. And last is the money—whether the jury had enough evidence to assess lost profits. Though we neither examine nor question the jury's factual finding that Wilford made material misrepresentations, we affirm the district court's decision to grant the motion for judgment as a matter of law and dismiss ThermoTek's claims.

**II.**

First up is whether Wilford and Thermo Compression waived their preemption defenses by failing to plead them. The district court said no—an answer we review for abuse of discretion.<sup>8</sup> We find no abuse of discretion here.

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<sup>8</sup> Relying on a D.C. Circuit decision, ThermoTek posits that our review should be de novo. True, in *Harris v. Secretary, U.S. Department of Veterans Affairs*, the D.C. Circuit reviewed de novo whether the defendant waived an affirmative defense by failing to plead it. 126 F.3d 339, 342 (D.C. Cir. 1997). But ThermoTek reads too much into that decision. The *Harris* court used a de novo standard because the D.C. Circuit had never before determined whether Rule 8(c) of the Federal Rules of Civil Procedure permits a party to raise unpled defenses for the first time in dispositive motions. *Id.* at 342 n.1. And since that decision, the D.C. Circuit has left open whether an abuse-of-discretion or de novo standard applies. *Kapche v. Holder*, 677 F.3d 454, 465 n.13 (D.C. Cir. 2012).

Unlike the *Harris* court, we are not breaking new ground. Our circuit has already articulated a rule: a “technical failure to comply precisely with Rule 8(c) is not fatal” when an affirmative defense is raised at a “pragmatically sufficient time” and the plaintiff is “not prejudiced in its ability to respond.” *Allied Chem. Corp. v. Mackay*, 695 F.2d 854, 856 (5th Cir. 1983) (per curiam). An abuse-of-discretion standard is therefore appropriate, particularly given the fact-specific approach *Allied Chemical* requires. See *Pierce v. Underwood*, 487 U.S. 552, 562 (1988); *Miller v. Fenton*, 474 U.S. 104, 114 (1985).

To be sure, at least one of our precedents, *Pasco ex rel. Pasco v. Knoblauch*, could be read to have applied a de novo standard to a district court's waiver determination. 566 F.3d 572, 575 (5th Cir. 2009). But there, unlike here, we reversed the district court's waiver determination for applying the wrong legal standard. *Id.* at 577; cf. *Klier v. Elf Atochem N. Am., Inc.*, 658 F.3d 468, 474 (5th Cir. 2011) (“By definition, a district court abuses its discretion when it makes an error of law or applies an incorrect legal standard.”). Most of our decisions have instead applied an abuse-of-discretion standard when considering whether a party waived its affirmative defense. See, e.g., *LSREF2 Baron, L.L.C. v. Tauch*, 751 F.3d 394, 399 (5th Cir. 2014); *Levy Gardens Partners 2007, L.P. v. Commonwealth Land Title Ins. Co.*, 706

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Federal Rule of Civil Procedure 8(c) requires a defendant to state affirmative defenses in its responsive pleading. Fed. R. Civ. P. 8(c) (“In responding to a pleading, a party must affirmatively state any avoidance or affirmative defense . . . .”). Failure to comply with this rule may result in waiver. *Lucas v. United States*, 807 F.2d 414, 417 (5th Cir. 1986) (citing *Starcraft Co. v. C.J. Heck Co.*, 748 F.2d 982, 990 n.11 (5th Cir. 1984)). But if “the [affirmative defense] is raised in the trial court in a manner that does not result in unfair surprise,” then a “technical failure to comply precisely with Rule 8(c) is not fatal.” *Id.* at 417 (quoting *Allied Chem. Corp. v. Mackay*, 695 F.2d 854, 855–56 (5th Cir. 1983) (per curiam)). Because Rule 8(c)’s purpose is to give the plaintiff fair notice, we recognize “some play in the joints.” *Rogers v. McDorman*, 521 F.3d 381, 385 (5th Cir. 2008). A defendant thus avoids waiver if (1) the defendant raised the affirmative defense “at a pragmatically sufficient time,” and (2) the plaintiff “was not prejudiced in its ability to respond.” *Lucas*, 807 F.2d at 418 (quotation mark omitted) (quoting *Allied Chem.*, 695 F.2d at 856); *see also* 2 *Moore’s Federal Practice* § 8.08[3] (3d ed. 2016).

ThermoTek got fair notice. It learned of the preemption defense at a pragmatically sufficient time and suffered no prejudice. The preemption issue first surfaced at the summary judgment stage before discovery closed and nearly two years before trial. And, in denying the motion to reconsider its summary judgment order, the district court noted that it could “consider a preemption challenge to ThermoTek’s unfair competition claim by motion for judgment as a matter of law and by post-judgment motion, if necessary, assuming ThermoTek prevails on that claim at trial.” The parties therefore had two years’ notice that preemption was on the table.

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F.3d 622, 633 (5th Cir. 2013). In any event, even under ThermoTek’s proposed de novo standard we would still agree with the district court.

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Preemption resurfaced closer to and during trial. After the parties had engaged in substantial additional discovery—and still before trial—Wilford and Thermo Compression raised copyright and patent law preemption in the parties’ joint proposed pretrial order. Wilford and Thermo Compression raised those defenses again in Rule 50 motions at the close of both cases-in-chief. *See* Fed. R. Civ. P. 50. The charge conference also addressed preemption.<sup>9</sup>

All this was enough to meet our “sufficiently pragmatic” requirement. We have repeatedly rejected waiver arguments when a defendant raised an affirmative defense for the first time at summary judgment—or even later. *See, e.g., Pasco ex rel. Pasco v. Knoblauch*, 566 F.3d 572, 578 (5th Cir. 2009) (no waiver when defendant first raised affirmative defense of qualified immunity in summary judgment motion filed two months before discovery was due and six months before the pretrial conference); *Lafreniere Park Found. v. Broussard*, 221 F.3d 804, 808 (5th Cir. 2000) (no waiver where defendants first raised affirmative defense of res judicata in summary judgment motion and plaintiffs had fourteen months to respond and filed three responsive briefs during that period); *Allied Chem.*, 695 F.2d at 855–56 (no waiver where defendant first raised affirmative defense of usury in motion for summary judgment and the defense appeared in the pretrial order); *Lucas*, 807 F.2d at 417–18 (no waiver when the government first raised affirmative defense of a statutory damages cap at trial immediately after expert testimony on damages). In fact, we have recognized that sometimes a preemption defense is most suitably raised *after* the defendant answers the complaint. *See Fisher v. Halliburton*, 667 F.3d 602, 610 (5th Cir. 2012) (“Unless the complaint itself establishes the applicability of a federal-preemption defense—in which case the issue may properly be the

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<sup>9</sup> To help resolve the preemption questions, Wilford and Thermo Compression sought a special verdict form requiring the jury to identify each misappropriated product or type of information. The district court denied this request after ThermoTek failed to agree to it.

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subject of a Rule 12(b)(6) motion—a defendant should ordinarily raise preemption in a Rule 12(c) motion for judgment on the pleadings or a Rule 56 motion for summary judgment.” (footnote omitted)).

Nor did ThermoTek suffer prejudice “in its ability to respond.” *Allied Chem.*, 695 F.2d at 856. The company admitted as much to the district court. When asked to identify specific prejudice, including what it would have done differently had Wilford and Thermo Compression pleaded preemption, ThermoTek’s counsel stated, “I don’t know what we would have done differently,” and “[p]ractically speaking, I don’t know that we would have done anything differently.”

The district court did not abuse its discretion in reaching the preemption defense on the merits.

### III.

The merits question is whether federal copyright and patent laws preempted the unfair-competition-by-misappropriation claim. They did.

#### A.

The district court held that federal copyright law preempts ThermoTek’s unfair competition claim insofar as that claim relates to works of authorship fixed in a tangible medium of expression—here, ThermoTek’s manuals, reports, billing information, and other written documents.

Section 102(a) of the federal Copyright Act protects “original works of authorship fixed in any tangible medium of expression.” 17 U.S.C. § 102.<sup>10</sup> In

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<sup>10</sup> “Works of authorship” include the following, non-exclusive, categories:

- (1) literary works;
- (2) musical works, including any accompanying words;
- (3) dramatic works, including any accompanying music;
- (4) pantomimes and choreographic works;
- (5) pictorial, graphic, and sculptural works;
- (6) motion pictures and other audiovisual works;



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turn, § 102(b) excludes from copyright protection “any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.” *Id.*

But the Copyright Act preempts more than it protects. *Ultraflo Corp. v. Pelican Tank Parts, Inc.*, 845 F.3d 652, 656 (5th Cir.), *cert. denied*, 137 S. Ct. 2266 (2017). Specifically, § 301(a)<sup>11</sup> “preempts state protection of works that fall within the subject matter (that is, the scope) of copyright, regardless whether the works are actually afforded protection under the Copyright Act.” *Id.* (citing *Spear Mktg., Inc. v. BancorpSouth Bank*, 791 F.3d 586, 596–96 (5th Cir. 2015)); *see also United States ex rel. Barge v. Bd. of Trustees of the Univ. of Ala.*, 104 F.3d 1453, 1463 (4th Cir. 1997) (“[S]cope and protection are not synonyms. . . . [T]he shadow actually cast by the Act’s preemption is notably broader than the wing of its protection.”). That means the Copyright Act can preempt a state law claim even if the intellectual property lands in one of § 102(b)’s exclusions. *Ultraflo*, 845 F.3d at 656; *Spear*, 791 F.3d at 596–97.

Our copyright preemption test involves two steps. *Ultraflo*, 845 F.3d at 656 (citing *Alcatel USA, Inc. v. DGI Techs., Inc.*, 166 F.3d 772, 785 (5th Cir.

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- (7) sound recordings; and
  - (8) architectural works.

17 U.S.C. § 102(a); *see also id.* § 101 (“The terms ‘including’ and ‘such as’ are illustrative and not limitative.”).

<sup>11</sup> This section provides that

all legal or equitable rights that are equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106 in works of authorship that are fixed in a tangible medium of expression and come within the subject matter of copyright as specified by sections 102 and 103 . . . are governed exclusively by this title. Thereafter, no person is entitled to any such right or equivalent right in any such work under the common law or statutes of any State.

17 U.S.C. § 301(a).

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1999)). We first ask whether “the intellectual property at issue is within the subject matter of copyright.” *Id.* If yes, we find preemption if the state law claim “protects rights in that property that are equivalent to any of the exclusive rights within the general scope of copyright.” *Id.*; *cf.* 1 Melville B. Nimmer & David Nimmer, *Nimmer on Copyright* § 1.01[B] (2017). We review de novo the district court’s answers to these two questions. *Ultraflo*, 845 F.3d at 655.

**i.**

We agree with the district court that most of the misappropriated information—including ThermoTek’s manuals, reports, billing information, and other written documents—is within the subject matter of copyright. That information constitutes original works of authorship fixed in a tangible medium of expression.

Seeking to avoid this result, ThermoTek contends that the district court should have required proof that the intellectual property at issue “fell outside of section 102(b).” This argument carries no purchase because it conflates copyright *protection* with copyright *preemption*. *See, e.g., Ultraflo*, 845 F.3d at 656. Again, preemption is the broader concept because it preserves Congress’s calls on what gets protection. *Id.* (“[T]o allow states to protect fixed ideas would intrude upon Congress’s exclusion in section 102(b) of ideas from federal copyright protection.”).

ThermoTek also faults the district court for not requiring Wilford and Thermo Compression to identify which § 102(a) categories applied to each piece of intellectual property. This argument also founders because § 102(a)’s list is “illustrative and not limitive.” 17 U.S.C. § 101. The task was to show that ThermoTek’s allegedly misappropriated intellectual property fell within copyright’s subject matter, not to find the right § 102(a) label. Wilford and Thermo Compression met that burden, identifying the intellectual property that would be subject to copyright preemption—emails, website information, product codes,

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drawings, FDA filings, and reports. *Cf. Ultraflo*, 845 F.3d at 656 (holding a noncopyrightable valve design within copyright’s subject matter); *Spear*, 791 F.3d at 596–97 (holding noncopyrightable ideas contained in a software program within copyright’s subject matter); *Taquino v. Teledyne Monarch Rubber*, 893 F.2d 1488, 1501 (5th Cir. 1990) (finding engineering drawings within copyright’s subject matter and holding a conversion-of-drawings claim preempted).<sup>12</sup>

We therefore agree with the district court on step one.

## ii.

So, too, for step two. Here, we ask whether the relevant state law claim seeks to protect property rights “equivalent” to those “within the general scope of copyright.” 17 U.S.C. § 301; *see also Ultraflo*, 845 F.3d at 658 (“[T]he ‘equivalent rights’ inquiry . . . looks not at the rights Congress actually provided but at the type of rights it has the power to confer.”). To measure equivalency, we employ the “extra elements” test, probing whether the state law claim has at least one element that “qualitatively differs” from a federal copyright claim. *Id.* at 657. We have previously observed that “if the act or acts of [the defendant] would violate both misappropriation law and copyright law, then the state right is deemed equivalent to copyright.” *Alcatel*, 166 F.3d at 787 (quotation marks omitted).

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<sup>12</sup> This is a point ThermoTek appears largely to concede. The company acknowledged in its brief that “much” of the intellectual property at issue was “reduced to a tangible medium.” The only piece of intellectual property ThermoTek identifies in its brief as falling outside copyright’s protection is “a distinct characteristic of the [VascuTherm] unit’s power supply” that “was discussed specifically with Wilford.” As explained below, however, that information about VascuTherm’s functional characteristics falls under the scope of federal patent law. Beyond its brief, ThermoTek asserted for the first time during oral argument that its entire “distribution system” fell outside the scope of copyright. But ThermoTek waived that argument. *E.g., United States v. Scroggins*, 599 F.3d 433, 446 (5th Cir. 2010) (“A party that asserts an argument on appeal, but fails to adequately brief it, is deemed to have waived it.” (quoting *Knatt v. Hosp. Serv. Dist. No. 1*, 327 F. App’x 472, 483 (5th Cir. 2009)).

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The only unfair competition claim that ThermoTek tried to the jury was “unfair competition by misappropriation,” a Texas common law tort. That claim comprises three elements:

(i) the creation of plaintiff’s product through extensive time, labor, skill and money, (ii) the defendant’s use of that product in competition with the plaintiff, thereby gaining a special advantage in that competition (*i.e.*, a “free ride”) because defendant is burdened with little or none of the expense incurred by the plaintiff, and (iii) commercial damage to the plaintiff.

*U.S. Sporting Prods., Inc. v. Johnny Stewart Game Calls, Inc.*, 865 S.W.2d 214, 218 (Tex. App.—Waco 1993, writ denied); *see also Alcatel*, 166 F.3d at 788. A copyright claim also has three prongs: “(1) ownership of a valid copyright; (2) factual copying; and (3) substantial similarity.” *Nola Spice Designs, L.L.C. v. Haydel Enters.*, 783 F.3d 527, 549 (5th Cir. 2015) (quotation mark omitted).

We have twice held that Texas’s unfair-competition-by-misappropriation tort does not afford protection qualitatively different from federal copyright law. *See Ultraflo*, 845 F.3d at 657–59 (holding that copyright preempted a Texas unfair-competition-by-misappropriation claim); *Alcatel*, 166 F.3d at 787–89 (same). We do so again here.

We also disagree with ThermoTek’s position that the jury instructions added an extra element—an “improper means” prong—to the misappropriation claim. The instructions did no such thing. They informed the jury that

[a] person does not misappropriate a competitor’s product . . . merely by developing a competing product through such means as inspection and analysis of the competitor’s product, reverse engineering applied to the competitor’s finished product, independent research, or use of publicly-available information.

According to ThermoTek, that language distinguishes “information discovered by fair and honest means” from “information obtained wrongfully”—a dichotomy that supposedly sets the state law claim outside of copyright’s ambit. The

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problem with this argument is that ThermoTek misreads both the jury instructions and the cases discussing “improper means” elements.

As ThermoTek concedes, a claim for unfair competition by misappropriation does not include an “improper means” element; that prong instead appears in the Texas tort of misappropriation of *trade secrets*. And in the trade secrets context, Texas law defines “improper means” as “theft, fraud, unauthorized interception of communications, inducement of or knowing participation in a breach of confidence, and other means either wrongful in themselves or wrongful under the circumstances of the case.” *Astoria Indus. of Iowa, Inc. v. SNF, Inc.*, 223 S.W.3d 616, 636 (Tex. App.—Fort Worth 2007, pet. denied). We have held that, precisely because a trade secrets claim *requires* “wrongful conduct beyond mere reproduction,” federal copyright law does not preempt the Texas action for misappropriation of trade secrets. *GlobeRanger Corp. v. Software AG United States of Am., Inc.*, 836 F.3d 477, 488 (5th Cir. 2016). No such requirement appeared in this case.

Here, the jury instruction never mentioned “improper means,” nor did it condition liability on a defendant’s “wrongful conduct beyond mere reproduction.” *Id.* The instruction instead defined the “use” element of ThermoTek’s misappropriation claim as involving literal copying—a specific type of reproduction. *See, e.g., Oracle Am., Inc. v. Google Inc.*, 750 F.3d 1339, 1356 (Fed. Cir. 2014) (distinguishing between literal and non-literal copying, both of which may be actionable copyright infringement); *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930) (Hand, J.) (same); *see also* 4 Nimmer & Nimmer, *supra*, § 13.03[A][1]. In other words, the jury instruction still protected against the type of reproduction against which copyright guards. The state law claim was therefore preempted.

Our caselaw confirms this conclusion. In fact, ThermoTek’s argument is nearly identical with the one we rejected in *Alcatel*. *See* 166 F.3d at 789. There,

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a defendant attempted to show that the Texas unfair-competition-by-misappropriation claim requires more than mere reproduction because a defendant is liable only if he “uses” the plaintiff’s product “in competition” with the plaintiff. *See id.* In that defendant’s view, the state law claim qualitatively differed from a copyright action because “an unauthorized act of reproduction . . . would not, in itself, offend the competition requirement of state law.” *Id.* That was a distinction without a difference, we held, because proof of copying under the Texas claim’s “use” element was sufficient to satisfy copyright’s factual copying element. *Id.* The same logic obtains here.

Seeking to circumvent *Alcatel*, ThermoTek argues that we must look to the “discrete facts” and “actual alleged misconduct,” not just the elements of a misappropriation claim. *GlobeRanger*, 836 F.3d at 485, 488 (finding no preemption on Texas’s misappropriation-of-trade-secrets claim). ThermoTek’s argument is self-defeating; the company contends that “the only difference” between this case and *GlobeRanger* is the “claim asserted by ThermoTek.” But that difference matters. Again, the claim asserted in *GlobeRanger* was misappropriation of trade secrets—a tort *requiring* proof that “the protected information was taken via improper means or breach of a confidential relationship.” *Id.* at 488. ThermoTek, however, voluntarily dismissed its trade secrets claim and instead advanced an unfair-competition-by-misappropriation tort—a cause of action that, as explained above (and under the facts of this case), did not demand proof of improper means or breach of confidence. *See Ultraflo*, 845 F.3d at 657–59; *Alcatel*, 166 F.3d at 788. ThermoTek cannot escape copyright’s clutches.

We therefore decline ThermoTek’s invitation to depart from our binding precedent. The district court correctly found copyright preemption.

**B.**

The district court’s patent preemption analysis was similarly sound. To

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be sure, copyright does not preempt ThermoTek's case theory that Wilford and Thermo Compression misappropriated physical products (the VascuTherm unit and associated wraps) and their functional characteristics. But that theory trades Scylla for Charybdis; in dodging copyright preemption it sinks into patent preemption.

The federal patent statute protects those who “invent[] or discover[] any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. Federal law also protects “any new, original and ornamental design for an article of manufacture.” *Id.* § 171. The Supreme Court has summarized the federal patent scheme as follows:

The applicant whose invention satisfies the requirements of novelty, nonobviousness, and utility, and who is willing to reveal to the public the substance of his discovery and “the best mode . . . of carrying out his invention,” 35 U.S.C. § 112, is granted “the right to exclude others from making, using, or selling the invention throughout the United States,” for a period of 17 years. 35 U.S.C. § 154. The federal patent system thus embodies a carefully crafted bargain for encouraging the creation and disclosure of new, useful, and nonobvious advances in technology and design in return for the exclusive right to practice the invention for a period of years.

*Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 150–51 (1989) (alteration in original). Patent law's primary purposes are (1) “to foster and reward invention”; (2) to “promote[] disclosure of inventions, to stimulate further innovation and to permit the public to practice the invention once the patent expires”; and (3) “to assure that ideas in the public domain remain there for the free use of the public.” *Aronson v. Quick Point Pencil Co.*, 440 U.S. 257, 262 (1979) (citing *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480–81 (1974)).

Resolving a federal patent preemption defense requires courts to consider “whether [state] law stands as an obstacle to the accomplishment and

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execution of the full purposes and objectives of Congress.” *Id.* (quotation marks omitted). “The offer of federal protection from competitive exploitation of intellectual property would be rendered meaningless in a world where substantially similar state law protections were readily available.” *Bonito Boats*, 489 U.S. at 151. “[S]tate regulation of intellectual property,” therefore, “must yield to the extent that it clashes with the balance struck by Congress in our patent laws.” *Id.* at 152.

Whether federal patent law preempts the Texas claim for unfair competition by misappropriation is a novel question in our circuit. But we are not without guidance. Take the *Bonito Boats* decision. There, the Supreme Court held that federal patent law preempted a Florida state law prohibiting unauthorized duplication of boat hulls or other component parts. 489 U.S. at 144–45, 168. In reaching that result, the Supreme Court compared two categories of state unfair competition laws. The first group primarily sought to guard consumers against “deceit” and “confusion as to source.” *Id.* at 157. The second aimed to protect “the functional aspects of a product which [have] been placed in public commerce absent the protection of a valid patent.” *Id.* at 156 (citing *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 233 (1964)). Federal patent law, the Supreme Court observed, would generally tolerate the former but preempt the latter. The former would typically pass muster because those laws protect “against copying of nonfunctional aspects of consumer products which have acquired secondary meaning such that they operate as a designation of source.” *Id.* at 158. The latter laws, however, would likely obstruct Congress’s goals by “offer[ing] patent-like protection to intellectual creations which would otherwise remain unprotected as a matter of federal law.” *Id.* at 156.

Insofar as ThermoTek’s misappropriation action seeks to protect its VasuTherm unit and wraps (or their functional aspects), that claim falls into the second *Bonito Boats* bucket. *See id.* at 156. ThermoTek’s claim is indeterminate



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as to consumer confusion or the “copying of nonfunctional aspects of consumer products which have acquired secondary meaning such that they operate as a designation of source.” *Id.* at 158. Instead, this claim, like patent law, “is specifically designed to protect the *labor*—the so-called ‘sweat-equity’—that goes into creating a work.” *Alcatel*, 166 F.3d at 788; *see also Aronson*, 440 U.S. at 262 (observing that fostering and rewarding invention is a purpose of patent law); *King Instruments Corp. v. Perego*, 65 F.3d 941, 950 (Fed. Cir. 1995) (“[T]he Patent Act creates an incentive for innovation. The economic rewards during the period of exclusivity are the carrot.”). But unlike patent law, the Texas cause of action does not limit the period of protection, nor does it condition protection on the invention’s novelty, nonobviousness, or utility. *See Alcatel*, 166 F.3d at 788. ThermoTek’s misappropriation claim therefore “substantially interferes with the enjoyment of an unpatented utilitarian or design conception which has been freely disclosed by its author to the public at large” and “impermissibly contravenes the ultimate goal of public disclosure and use which is the centerpiece of federal patent policy.” *Bonito Boats*, 489 U.S. at 156–57; *cf. Summit Mach. Tool Mfg. Corp. v. Victor CNC Sys., Inc.*, 7 F.3d 1434, 1441–42 (9th Cir. 1993) (finding patent preemption of California’s analogous unfair-competition-by-misappropriation tort).

In opposition, ThermoTek reprises the same arguments it leveled against the district court’s copyright findings: that preemption analysis must consider a defendant’s actions, and that ThermoTek’s claim had an extra element of “fraud and dishonest[y]” because the jury instructions excluded reverse engineering from the proscribed conduct. These arguments fare no better the second time around. The jury needed only conclude that ThermoTek expended time and money to create its units and wraps, that Wilford and Thermo Compression used those products to gain a competitive advantage in the market, and that ThermoTek suffered damages. *Alcatel*, 166 F.3d at 788. There was no

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fraud or dishonesty element, nor did ThermoTek stake its misappropriation claim on such arguments. After all, at trial ThermoTek acknowledged its case theory was that Wilford and Thermo Compression “used” ThermoTek’s units and wraps by taking its intellectual property “lock, stock, and barrel.” Hence, patent preemption. *See Bonito Boats*, 489 U.S. at 164.

We affirm the district court’s patent preemption finding.

#### IV.

Finally, we reach damages. On the fraud claim, the jury awarded ThermoTek \$770,000 in “lost profits” from wrap sales, \$500,000 in “[l]ost profits from unit sales,” \$193,000 in “[l]ost profits from additional expenses for unit repairs,” \$90,000 in “[l]ost profits from additional engineering costs,” and \$13,000 in “[l]ost profits from additional evaluation and tooling costs.”<sup>13</sup>

In granting Wilford’s renewed Rule 50 motion, the district court held that ThermoTek failed to provide sufficient evidence for a reasonable jury to award lost profits. *See Fed. R. Civ. P. 50*. We give a de novo look to that ruling, applying the same standard as the district court. *Brennan’s Inc. v. Dickie Brennan & Co. Inc.*, 376 F.3d 356, 362 (5th Cir. 2004). That means we affirm if “there is no legally sufficient evidentiary basis for a reasonable jury to find” for ThermoTek on the lost profits issue. *Id.* (quoting Fed. R. Civ. P. 50(a)(1)). We “review all of the evidence in the record, drawing all reasonable inferences in favor of the nonmoving party,” without “mak[ing] credibility determinations or weigh[ing] the evidence, as those are jury functions.” *Id.* (citing *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000)). Viewing the evidence through that lens, we see no error.

Texas law requires “[a] party seeking to recover lost profits [to] prove the loss through competent evidence with reasonable certainty.” *Atlas Copco Tools*,

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<sup>13</sup> We need not address damages on the preempted claims.

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*Inc. v. Air Power Tool & Hoist, Inc.*, 131 S.W.3d 203, 206–207 (Tex. App.—Fort Worth 2004, pet. denied) (citing *Szczepanik v. First S. Trust Co.*, 883 S.W.2d 648, 649 (Tex. 1994)). Though this test is “flexible,” any “opinions or estimates of lost profits must be based on objective facts, figures, or data from which the amount of lost profits can be ascertained.” *Id.* (citing *Tex. Instruments, Inc. v. Teletron Energy Mgmt., Inc.*, 877 S.W.2d 276, 279 (Tex. 1994); *Szczepanik*, 883 S.W.2d at 649). Failure to comply carries harsh consequences in Texas: “If no evidence is presented to prove lost profits with reasonable certainty, the trial court must render a take-nothing judgment as to lost-profit damages.” *Barton v. Resort Dev. Latin Am., Inc.*, 413 S.W.3d 232, 236 (Tex. App.—Dallas 2013, pet. denied) (citing *Tex. Instruments*, 877 S.W.2d at 281).

The district court vacated the jury award because ThermoTek presented evidence of gross profits instead of net profits. That is precisely what Texas law expects courts to do; if a party aims to recover lost profits, it must show its net profits, not gross profits. *Atlas*, 131 S.W.3d at 209 (citing *Holt Aterton Indus. v. Heine*, 835 S.W.2d 80, 83 n.1 (Tex. 1992)). Net profits are “what remains in the conduct of a business after deducting from its total receipts all of the expenses incurred in carrying on the business.” *Id.* (quoting *Turner v. PV Int’l Corp.*, 765 S.W.2d 455, 465 (Tex. App.—Dallas 1988, writ denied)). Contrast gross profits, the “[t]otal sales revenue less the cost of the goods sold, no adjustment being made for additional expenses and taxes.” *Gross Profit*, *Black’s Law Dictionary* (10th ed. 2014). A legally adequate calculation of “lost profits” therefore accounts for all expenses in carrying out the business, not just the incremental costs of selling a particular product.<sup>14</sup>

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<sup>14</sup> See *Atlas*, 131 S.W.3d at 209 (holding that an expert “incorrectly calculated net profits by measuring lost gross profits” because the expert “deducted only the incremental costs of selling the [product at issue] and not other expenses incurred in carrying on [plaintiff’s] business” (quotation marks omitted)); see also *Hoss v. Alardin*, 338 S.W.3d 635, 654

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ThermoTek’s proof fell short of this standard. Its expert witness testified that he used ThermoTek’s gross profit margin—gross sales, less the cost of those goods sold, divided by gross sales—to calculate lost profits.<sup>15</sup> He then stated that he reached his lost-profit totals for the VascuTherm units and wraps by (1) multiplying the average sales ThermoTek made to Wilford each month by the unit sales price and relevant time period, and (2) deducting the cost of the goods sold. But that is the very definition of *gross profits*. See *Black’s Law Dictionary, supra* (defining gross profits as “[t]otal sales revenue less the cost of the goods sold, no adjustment being made for additional expenses and taxes”). Indeed, the expert himself conceded on cross-examination that his numbers reflected “gross profits rather than net profits.” He further acknowledged his margins were high because they did not account for ThermoTek’s other business expenses. These same flaws doom his calculations of “lost profits” stemming from ThermoTek’s repair, engineering, and tooling costs associated with the wrongfully returned VascuTherm units.

Citing the Restatement (Third) of Unfair Competition § 37, ThermoTek argues that gross profits are the “proper measure of damages in this context.” ThermoTek also contends that Wilford had the burden to prove any “costs or

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(Tex. App.—Dallas 2011, no pet.) (noting that an expert’s report of plaintiff’s “gross profits, without accounting for overhead . . . is no[t] evidence of [plaintiff]’s net profits”); *Wiese v. Pro Am Servs., Inc.*, 317 S.W.3d 857, 863 & n.4 (Tex. App.—Houston [14th Dist.] 2010, no pet.) (holding evidence insufficient to show lost profits where plaintiff’s calculation did not “deduct[] any amount for normal business operating expenses,” such as “employee salaries and medical benefits”); *S. Plains Switching, Ltd. v. BNSF Ry. Co.*, 255 S.W.3d 690, 705–06 (Tex. App.—Amarillo 2008, pet. denied) (holding evidence insufficient where plaintiffs showed the “revenue that would be received” and “cost[s]” associated with their relevant line of business without any “testimony about other necessary expenses of doing business, such as depreciation, payroll expenses, administrative expenses, equipment expenses, and maintenance expenses”); *Texaco, Inc. v. Phan*, 137 S.W.3d 763, 771–73 (Tex. App.—Houston [1st Dist.] 2004, no pet.) (reversing damages award where the plaintiff failed to show its operating expenses).

<sup>15</sup> The expert used “lost profits” and “lost sales income” interchangeably during his testimony and in his visual aids. It is well-settled in Texas, however, that “lost income is not the correct measure” of lost profits. *Holt Atherton Indus.*, 835 S.W.2d at 84.

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expenses to be deducted for purposes of calculating net profit.” Not so. For starters, ThermoTek’s reliance on the Restatement is misplaced; section 37 pertains to “the award of an accounting of the defendant’s profits in actions for deceptive marketing and trademark infringement”—claims not at issue here. *Id.* § 37, cmt. a. And as the Restatement itself notes, the rules covering an accounting of profits differ from those governing a damages award. *Id.* In addition, Texas law is clear that the plaintiff, not the defendant, must prove net profits—a figure correctly measured by “deducting from [the plaintiff’s] total receipts all the expenses incurred in carrying on the business.” *Atlas*, 131 S.W.3d at 209 (quotation marks omitted).

Without evidence of ThermoTek’s business expenses, a jury viewing this record could not determine lost profits with reasonable certainty. *E.g., id.* Of course, this omission is not fatal if, for instance, there is evidence that the victim “was already profitable at the time damages began” and “could have performed profitable services using only its existing resources.” *ERI Consulting Eng’rs, Inc. v. Swinnea*, 318 S.W.3d 867, 879 (Tex. 2010). But ThermoTek does not advance such an argument, nor do we see support for it in the trial record. The proper recourse, then, was for the district court to enter judgment as a matter of law instead of remanding for a new trial. *See* Fed. R. Civ. P. 50(a)(1)(B), (b)(3); *see also Atlas*, 131 S.W.3d at 209 (rendering take-nothing judgment where plaintiff offered no evidence of “other expenses incurred in carrying on the business” besides “incremental costs of selling” the relevant product); *Barton*, 413 S.W.3d at 243, 246–47 (rendering take-nothing judgment where plaintiff failed to show its business expenses); *Kellmann v. Workstation Integrations, Inc.*, 332 S.W.3d 679, 687 (Tex. App.—Houston [14th Dist.] 2010, no pet.) (same); *cf. Sw. Energy Prod. Co. v. Berry-Helfand*, 491 S.W.3d 699, 721

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(Tex. 2016) (remanding for new trial where plaintiff presented sufficient evidence supporting less than the full amount awarded).<sup>16</sup>

Thus, the trial court did not err.

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AFFIRMED.

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<sup>16</sup> Both ThermoTek’s visual aid at trial and the jury verdict form identified the company’s alleged damages as “lost profits.” On appeal, ThermoTek defends these damages as “lost profits” and does not pose the question whether those same amounts were instead recoverable as out-of-pocket damages. *Accord* 41 Tex. Jur. 3d, *Fraud & Deceit* § 105. Thus, we do not address that issue.