

Chapter 9

Damages and Attorney Fees

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§ 9:1 Statutory Basis

The patent damages statute, 35 U.S.C. § 284, provides that a prevailing patent claimant shall recover “damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use of the invention made by the infringer, together with interest and costs as fixed by the court.”

Typically, damages are computed on a “lost profits” or a “reasonable royalty” basis, or a combination of both, and there is frequently a dispute as to which measure should be applied. When lost profits is the measure, damages typically include profits lost on the sales taken from the patent owner by the infringer, and can also include the damages caused by erosion of the patent owner’s prices, and other factors. If a reasonable royalty measure is applied, the determination of a royalty rate involves a multifactor analysis in which different factors may assume varying weights. An appropriate royalty base must also be determined. In appropriate cases, there can be a mixed award: lost profits may be awarded on that portion of the infringer’s sales for which a lost profits basis is established, with a reasonable royalty measure being applied to the remainder of the infringer’s sales. After patent damages have been determined, the patent owner is entitled to prejudgment interest, as well as its costs.

In “exceptional” cases, the patent statute provides for enhancement of damages up to three times the amount found, at the discretion of the court. Also, in exceptional cases, the prevailing party, which may include a successful defendant, may be awarded its reasonable attorneys’ fees under 35 U.S.C. § 285, again at the court’s discretion.

Determining patent damages also requires identifying the term for which the infringer must pay damages. Identification of the damages period is affected by several variables including the duration of the infringement, the duration of the period of validity of the patent, patent notice and marking requirements, and a statutory six-year limitation.

§ 9:1.1 Sales Subject to Damages

The amount of infringing sales made by the infringer in the applicable damages period is often referred to as the damages base. Where only direct infringement under 35 U.S.C. § 271(a) is relied on, the determination of the damages base is a relatively straightforward matter for discovery. Where all or part of the sought-for damages relies on inducement of infringement or contributory infringement under section 271(b) or (c), respectively, determination of the damages base can involve unique issues. For example, a patentee will be unable to recover pre-suit damages for induced or contributory infringement

unless it can show the accused infringer knew of the existence of the asserted patent and that the induced acts constitute infringement.¹

In addition, where a defendant is found to have engaged in induced or contributory infringement, there are issues as to how closely damages must be tied to instances of direct infringement. It is generally accepted that a patentee is not “required to demonstrate a one-to-one correspondence between units sold and directly infringing customers.”² However, in a case in which damages were assessed to include sales of a component of a patented combination that the defendant had shipped to distributors who would sell them to users who would assemble the components into the infringing combination, a quantity of components returned by the distributors to the defendant had to be excluded from the damages base. The reason was that, for induced or contributory infringement, there has to be an act of direct infringement. Such an act never occurred as to the returns, because they were never assembled into the infringing combinations.³

The Federal Circuit has been concerned not to permit double recovery of damages. In a case where the defendant’s infringing inflatable air mattresses were sold under the plaintiff’s trademark ONE TOUCH, the plaintiff was limited to its patent damages award and denied an additional award for trademark infringement damages, because both types of damages “flowed from the same operative facts: sales of the infringing [air] mattresses.”⁴ Similarly, the Federal Circuit found that a patent reasonable royalty damages award was duplicative of a disgorgement award for trade secret misappropriation where use of the plaintiff’s photodiode array structure was the basis of liability for both trade secret misappropriation and patent infringement, and the patent damages covered sales that were already part of the disgorgement award.⁵

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1. *SynQor, Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 1379, 106 U.S.P.Q.2d 1052 (Fed. Cir. 2013).
 2. *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc.*, 1 F. App’x 879, 884 (Fed. Cir. 2001); *see also* *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1334 (Fed. Cir. 2009) (“[W]e have never laid down any rigid requirement that damages in all circumstances be limited to specific instances of infringement proven with direct evidence.”); *but see* *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348, 1358–59, 91 U.S.P.Q.2d 1898 (Fed. Cir. 2009) (limiting reasonable royalty damages to devices that performed the claimed method).
 3. *Golden Blount, Inc. v. Robert H. Peterson Co.*, 438 F.3d 1354, 1373, 78 U.S.P.Q.2d 1004 (Fed. Cir. 2006).
 4. *Aero Prods. Int’l Inc. v. Intex Recreation Corp.*, 466 F.3d 1000, 1019, 80 U.S.P.Q.2d 1481 (Fed. Cir. 2006).
 5. *Tex. Advanced Optoelectronic Sols., Inc. v. Renesas Elecs. Am., Inc.*, 895 F.3d 1304, 2018 WL 3358927, at *17–18 (Fed. Cir. 2018).

Where a winning patent plaintiff has accepted a remittitur for damages on the defendant's sales of the infringing products to its customer, the plaintiff was not permitted to obtain damages from the customers of the infringer's customer as compensation for the benefits that they received from their use of the patented item, since the plaintiff had in effect licensed them by accepting the remittitur.⁶

If a machine is sold under conditions that are not infringing, or in which the putative infringer is not liable for damages, then the subsequent servicing or repair is either noninfringing or a nonrecoverable act of infringement.⁷ In *Fonar*, an infringer who was not liable for pre-suit damages because of the plaintiff's failure to mark was found not to have induced infringement by its subsequent repair of the accused machines after receiving notification of infringement. "If a machine was sold under circumstances that did not subject its seller to damages, then subsequent repair cannot subject it to damages."⁸ If there is no direct infringement, there is no inducement of infringement through service and repair.⁹ Where damages have been paid to the patent owner for infringing products, sales of unpatented repair parts for those products do not constitute new acts of infringement.¹⁰

§ 9:1.2 Extraterritorial Issues and Their Impact on Damages

There are certain issues that can arise in determining liability and damages for acts occurring outside the United States. A patent holder may recover damages on sales to foreign entities if the products are made, offered for sale, or sold in the United States in violation of 35 U.S.C. § 271(a). In 1984, Congress added section 271(f) to title 35 to impose liability for supplying in or from the United States any component of a patented invention that is specifically for use in the invention and not a staple item having substantial noninfringing use, knowing that it will be combined outside the United States in a manner that would infringe the patent if done in the United States. Liability under section 271(f) applies whether a company ships components overseas to a third party or to itself or its foreign

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6. *Glenayre Elecs., Inc. v. Jackson*, 443 F.3d 851, 866, 78 U.S.P.Q.2d 1641 (Fed. Cir. 2006).
 7. *Fonar Corp. v. Gen. Elec. Co.*, 107 F.3d 1543, 1555, 41 U.S.P.Q.2d 1801 (Fed. Cir.), *cert. denied*, 522 U.S. 908 (1997).
 8. *Id.*
 9. *Id.*
 10. *King Instrument Corp. v. Otari Corp.*, 814 F.2d 1560, 1564, 2 U.S.P.Q.2d 1201 (Fed. Cir.1987).

subsidiaries.¹¹ Damages can be recovered for infringements of section 271(f).

In 2007, in *Microsoft v. AT&T Corp.*,¹² the Supreme Court held that goods made and sold abroad, which incorporated software installed by the use of discs replicated abroad from master discs supplied from the United States that contained an infringing subroutine, could not be included in a damages computation under 35 U.S.C. § 271(f). Specifically, the Court held that because the abstract software code supplied from the United States was detached from an activating medium, it could not be considered a “component” under section 271(f) and that copies of the accused software made by foreign manufacturers abroad were not “supplied” from the United States for purposes of section 271(f).¹³

The Federal Circuit ruled en banc in 2009 that section 271(f) does not apply to method patents.¹⁴ As the court explained in *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, the terms “supplied” and “supplies” in section 271(f) imply “the transfer of a physical object,” which cannot apply to intangible steps in a method.¹⁵

In 2013, in *Power Integrations, Inc. v. Fairchild Semiconductor International, Inc.*, the Federal Circuit tackled the question of whether a patentee can obtain lost profits on foreign sales that were the direct, foreseeable result of the defendant’s domestic infringement under section 271(a).¹⁶ The patentee argued that pursuant to 35 U.S.C. § 284, a patentee is entitled to “full compensation” for any damages resulting from defendant’s domestic infringement, regardless of geographic scope.¹⁷ Thus, the patentee sought damages on units which were never made or sold in, or imported into, the United States on the grounds that it was foreseeable that the sales of defendant’s infringing power circuits in the United States would cause the patentee to lose sales worldwide.¹⁸ The court rejected this “foreseeability” theory,

11. *Promega Corp. v. Life Techs. Corp.*, 773 F.3d 1338, 1352–53, 113 U.S.P.Q.2d 1181 (Fed. Cir. 2014), *overruled on other grounds by* Life Techs. Corp. v. Promega Corp., 137 S. Ct. 734, 737 (2017).

12. *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 449–454, 127 S. Ct. 1746, 167 L. Ed. 2d 737 (2007).

13. *Id.* at 449, 453–54.

14. *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348, 1365, 91 U.S.P.Q.2d 1898 (Fed. Cir. 2009) (expressly overruling *Union Carbide Chem. & Plastics Tech. Corp. v. Shell Oil Co.*, 425 F.3d 1366, 76 U.S.P.Q.2d 1705 (Fed. Cir. 2005)).

15. *Id.* at 1364.

16. *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1371–72, 106 U.S.P.Q.2d 1361 (Fed. Cir. 2013).

17. *Id.* at 1370–71.

18. *Id.* at 1374.

holding that the principle of “full compensation” does not cover “a defendant’s foreign exploitation of a patented invention, which is not infringement at all.”¹⁹

The Federal Circuit reached a similar result in the royalty context in *Carnegie Mellon University v. Marvell Technology Group, Ltd.*²⁰ There, the court held that a patentee could not recover reasonable royalty damages for foreign sales of products that were not made in, delivered in, or imported into the United States, even if those sales somehow resulted from the infringement in the United States.²¹ Specifically, the court rejected Carnegie Mellon’s attempt to include in its royalty base foreign chip sales that it argued resulted from “sales cycle” activity in the United States.²² However, the court held that a partial new trial was needed to determine the location(s) of the “sale” of those chips, thus preserving the possibility that products that never entered the United States could be included in the royalty award if the “sale” is deemed to occur in the United States.²³

The Federal Circuit distinguished *Carnegie Mellon* in *Texas Advanced Optoelectronic Solutions, Inc. v. Renesas Electronics America, Inc.*²⁴ There, the Federal Circuit held that summary judgment of no damages for 98.8% of defendant’s sales of accused products was proper where the patentee did not dispute that 98.8% of the accused units were manufactured, packaged, and tested abroad, and shipped to manufacturers and distributors abroad.²⁵ The patentee relied on *Carnegie Mellon* to support its argument that it had presented sufficient evidence to create a material dispute of fact as to the required domestic activity for *all* accused units.²⁶ The Federal Circuit disagreed, noting that in *Carnegie Mellon* “there was some evidence suggesting the specific contractual commitments for specific volumes of chips [accused products] were made in the United States,” unlike here.²⁷

In 2017, in *Life Technologies Corp. v. Promega Corp.*, the Supreme Court held that export of a single component of a multicomponent invention is insufficient to trigger liability under section 271(f)(1).²⁸

19. *Id.* at 1371.

20. *Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd.*, 807 F.3d 1283, 116 U.S.P.Q.2d 1081 (Fed. Cir. 2015), *cert. denied*, 571 U.S. 1125 (2014).

21. *Id.* at 1308–11.

22. *Id.*

23. *Id.*

24. *Tex. Advanced Optoelectronic Sols., Inc. v. Renesas Elecs. Am., Inc.*, 895 F.3d 1304, 2018 WL 3358927, at *19 (Fed. Cir. 2018).

25. *Id.* at *18–19.

26. *Id.* at *19.

27. *Id.*

28. *Life Techs. Corp. v. Promega Corp.*, 137 S. Ct. 734, 737, 741–42, 121 U.S.P.Q.2d 1641 (2017).

In reaching this conclusion, the Court found that a quantitative measurement, rather than a qualitative measurement, must be used to determine if an alleged infringer supplied a “substantial portion” of the components of a patented invention.²⁹ On remand, the Federal Circuit held that, in light of this holding, the patentee failed to show that all of the accused products infringed under either section 271(f)(1) or 271(a) and had waived any argument that the trial record supported an alternative damages calculation.³⁰ Thus, the patentee was not entitled to any lost profits despite proof that at least some of the defendant’s products infringed.³¹

In 2018, the Supreme Court held in *WesternGeco L.L.C. v. ION Geophysical Corp.*,³² that a patentee may recover lost foreign profits for infringement under section 271(f)(2). The Supreme Court rejected the argument that this was an extraterritorial application of U.S. law.³³ Instead, awarding lost profits on lost foreign contracts was merely a domestic application of the damages statute, section 284, “as it was ION’s domestic act of supplying the components that infringed WesternGeco’s patents.”³⁴ The Supreme Court did not address the availability of foreign lost profits under section 271(f)(1).³⁵ It also did not address the Federal Circuit’s rulings in *Power Integrations* or *Carnegie Mellon* discussed above, which focused on potential recovery under section 271(a).

§ 9:2 Determination of Damages Period

There are a number of factors that may affect the start and end of the damages term, as discussed below.

§ 9:2.1 Start and End of Patent Term

Typically, the ownership of a pending patent application confers no right to damages prior to the issuance of the patent. This is because the damages statute, 35 U.S.C. § 284, provides damages only for infringement, which cannot occur until the patent has issued. However, an issue of concern may arise when the infringing product is sold to customers before the issuance of the patent and the customers

29. *Id.* at 739–41.

30. *Promega Corp. v. Life Techs. Corp.*, 875 F.3d 651, 660–66, 124 U.S.P.Q.2d 1755 (Fed. Cir. 2017), *petition for cert. filed*, U.S. June 14, 2018 (No. 17-1669).

31. *Id.* at 666.

32. *WesternGeco L.L.C. v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018).

33. *Id.* at 2136–38.

34. *Id.* at 2138.

35. *Id.* at 2144, n.2.

continue to use the product after the patent issues. In that case, the customers are engaged in infringement after the patent issues by using the patented invention during the term of the patent, notwithstanding the purchase of the device before the patent issued.³⁶ This situation can present liability issues for the manufacturer of the now-infringing device, who may be called upon by the customers for indemnification and defense, even though the manufacturer is not directly liable itself as an inducer or contributor to infringement since the sales occurred before the patent issued.

There is another situation where liability for patent infringement may arise for sales made prior to issuance of a patent. 35 U.S.C. § 154(d) provides a patentee with “provisional rights” (sometimes referred to as “pre-issuance damages”). Under that statute, a patentee may obtain a “reasonable royalty” from a party that has infringed a claim in the patentee’s published application if it can show that “the invention as claimed in the patent is substantially identical to the invention as claimed in the published patent application” and the infringer had actual notice of the published patent application.³⁷ Actual notice under section 154(d) requires only that the infringer had actual knowledge of the published patent application; an affirmative act by the applicant giving the infringer such notice is not required.³⁸ However, actual notice is not proven by “constructive knowledge” of the patent publication and/or actual knowledge of a related patent or published patent application.³⁹ Any provisional rights damages are limited to the time period between when a patent application is published and when it issues as a patent, provided that the patentee can show actual notice.⁴⁰

The start of the damages period can also be affected by the doctrine of intervening rights. Pursuant to 35 U.S.C. §§ 252, 307(b), 316(b), and 318(c), reissue proceedings, ex parte and inter partes reexaminations, and inter partes review can each give rise to intervening rights. Under the doctrine of absolute intervening rights, a patentee cannot recover damages prior to the issuance of the reissued or reexamined

36. *Coakwell v. United States*, 372 F.2d 508, 511, 153 U.S.P.Q. 307, 309 (Ct. Cl. 1967) (holding that the fact that certain articles embodying an invention were manufactured and obtained by the defendant before the patent was issued does not authorize their use thereafter).

37. 35 U.S.C. § 154(d)(1), (2).

38. *Rosebud LMS Inc. v. Adobe Sys., Inc.*, 812 F.3d 1070, 1073–76, 117 U.S.P.Q.2d 1717 (Fed. Cir. 2016) (holding that no affirmative act by the patentee is required to give actual notice, but affirming a finding of no pre-issuance damages where the patentee presented evidence that the defendant had knowledge of the parent application, but failed to show actual knowledge of the published application).

39. *Id.* at 1073–75.

40. 35 U.S.C. § 154(d)(1).

patent claims if the original claims undergo a “substantive change.”⁴¹ Under the doctrine of equitable intervening rights, the court has the discretion to provide for the continued manufacture, use, or sale of products if the accused infringer made “substantial preparation” for the infringing activity before the date of the reissued or reexamined patent claims.⁴² Intervening rights do not apply to reexamined claims that were not formally amended or newly added, but were only narrowed by argument during reexamination.⁴³

Liability for damages normally concludes when the defendant terminates its infringement or when the patent claim infringed has expired at the conclusion of the patent term. For example, the Supreme Court has long held that a patentee cannot enforce a licensing provision for post-expiration royalties.⁴⁴ While this rule against post-expiration damages seems simple, there is some case law based on “accelerated market entry” or “accelerated reentry” that suggests that lost profits can include some recovery for loss of profits for some period after the expiration of the patent in order to compensate the patentee for the loss of profit after expiration caused by accelerated reentry. The theory of accelerated market entry is that the infringer, because it infringed during the term of the patent and built market share, can reenter the market at a higher level when the patent expires than would otherwise have been the case but for the infringement and can, therefore, take a high level of profit from the patent owner in the post-expiration period as a direct result of the infringement before the patent expired.⁴⁵ The

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41. *Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, 875 F.3d 1369, 1377–80 (Fed. Cir. 2017), 124 U.S.P.Q.2d 1745, *petitions for cert. filed*, U.S. Apr. 26, 2018, May 31, 2018 (Nos. 17-1497, 17-1649) (finding that doctrine of absolute intervening rights applied where claims were substantively amended during reexamination, thus barring damages for the period before the reexamination certificate issued); *see also* *BIC Leisure Prods., Inc. v. Windsurfing Int'l, Inc.*, 1 F.3d 1214, 1220, 27 U.S.P.Q.2d 1671, 1676 (Fed. Cir. 1993).
 42. *Marine Polymer Techs., Inc. v. HemCon, Inc.*, 672 F.3d 1350, 1361–62, 102 U.S.P.Q.2d 1161 (Fed. Cir. 2012).
 43. *Id.* at 1363–65.
 44. *Brulotte v. Thys Co.*, 379 U.S. 29, 30–33, 143 U.S.P.Q.2d 264 (1964); *see also* *Kimble v. Marvel Entm't, LLC*, 135 S. Ct. 2401, 2407, 114 U.S.P.Q.2d 1941 (2015).
 45. District court cases lending support to this theory include *Magna Elecs., Inc. v. TRW Auto. Holdings Corp.*, 2015 WL 11434373, at *2, *5 (W.D. Mich. Dec. 31, 2015); *TP Orthodontics, Inc. v. Prof'l Positioners, Inc.*, 17 U.S.P.Q.2d 1497, 1504–05 (E.D. Wis. 1990), *vacated in part*, 20 U.S.P.Q.2d 1017 (E.D. Wis. 1991), *on reconsideration*, 22 U.S.P.Q.2d 1628 (E.D. Wis.), *aff'd*, 980 F.2d 743 (Fed. Cir. 1992); *BIC Leisure Prods., Inc. v. Windsurfing Int'l, Inc.*, 687 F. Supp. 134, 138, 9 U.S.P.Q.2d 1152 (S.D.N.Y. 1988); *but see* *DSU Med. Corp. v. JMS Co.*, 296 F. Supp. 2d 1140, 1150–52 (N.D. Cal. 2003).

theory of accelerated market entry does not apply to reasonable royalty damages.⁴⁶

§ 9:2.2 Start and End of Infringement

In general, there cannot be liability for patent infringement damages before the acts of infringement have commenced. There is, however, at least one precedent, not a patent case, which permitted the owner of a mask work to recover damages caused by cutting its prices and losing profits in anticipation of an infringing product's release before sale of the infringing product had occurred.⁴⁷ In that case, for damages under the Chip Protection Act,⁴⁸ the defendant had publicly announced in April 1988 its intent to introduce its infringing chips at a lower price than the plaintiff, although commercial sales did not begin until August 1988.⁴⁹ Referring to patent precedent for guidance,⁵⁰ the Federal Circuit affirmed the jury's use of the plaintiff's price reductions caused by the announced marketing of the chips at issue as a basis for damages.

§ 9:2.3 Six-Year Pre-Complaint Limitation

The patent statute sets a six-year limitation on recovery of damages for pre-complaint activities. Specifically, 35 U.S.C. § 286 provides that "no recovery shall be had for any infringement committed more than six years prior to the filing of the Complaint or Counterclaim for infringement of the action."

§ 9:2.4 Laches Not a Limit on Damages

In *SCA Hygiene Products AB v. First Quality Baby Products, LLC*, the Supreme Court held that the defense of laches cannot be invoked to limit legal damages for infringement occurring within the Patent Act's six-year statute of limitations.⁵¹ The Court adopted the reasoning it applied in copyright cases in *Petrella v. Metro-Goldwyn-Mayer, Inc.*⁵² Specifically, the Court found that because laches and statutes of

46. *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1344 n.8, 114 U.S.P.Q.2d 1416 (Fed. Cir. 2015) (rejecting argument that reasonable royalties are recoverable for post-expiration sales under theory of "accelerated market entry," because that theory only applies to lost profits).

47. *Brooktree Corp. v. Advanced Micro Devices, Inc.*, 977 F.2d 1555, 1579–81, 24 U.S.P.Q.2d 1401 (Fed. Cir. 1992).

48. 17 U.S.C. § 911(b).

49. *Brooktree Corp.*, 977 F.2d at 1577.

50. *Id.* at 1579.

51. *SCA Hygiene Prods. AB v. First Quality Baby Prods., LLC*, 137 S. Ct. 954, 959, 967, 121 U.S.P.Q.2d 1873 (2017).

52. *Id.* at 959–61 (citing *Petrella v. Metro-Goldwyn-Mayer, Inc.*, 134 S. Ct. 1962, 1967, 1974 (2014)).

limitations both serve to shield a party against untimely claims, allowing a laches defense “within a limitations period specified by Congress would give judges a ‘legislation-overriding’ role that is beyond the Judiciary’s power.”⁵³

Notably, in *SCA Hygiene*, the Supreme Court did not disturb the ability to assert laches as a defense to equitable remedies, such as an injunction. Thus, as discussed in section 9:5.9, absent extraordinary circumstances, laches remains a potentially viable defense to an ongoing royalty or other equitable relief,⁵⁴ even though it is no longer a defense against damages for infringement within the six-year statutory period.⁵⁵

§ 9:2.5 Limitations Imposed by the Patent Marking Statute

As a further time limitation on damages, in order to recover pre-suit damages, 35 U.S.C. § 287 requires patentees either to provide an infringer with actual notice of infringement or, together with their assignees and licensees, to mark any products made under the patent. Historically, patentees were required to mark products covered by the patent by marking them with the word “patent” or “pat.” together with the patent number. Under the American Invents Act (AIA) enacted on September 16, 2011, Congress provided a new way to comply with the marking statute by adding a virtual marking provision. The virtual marking provision allows patentees to mark products with “patent” or “pat.” along with the web address where the individual patent numbers covering that product are listed. When the “character of the article” makes it impractical to mark the product directly, section 287(a) allows the product’s packaging to be marked instead.⁵⁶ There are two important exceptions to the marking requirement. The

53. *Id.* at 960 (quoting *Petrella*, 134 S. Ct. at 1974).

54. *See* *Am. Tech. Ceramics Corp. v. Presidio Components, Inc.*, No. 14-CV-6544(KAM)(GRB), 2018 WL 1525686, at *22–23 (E.D.N.Y. Mar. 27, 2018) (granting summary judgment as to laches defense to liability and damages, but finding that based on plaintiffs’ concession, defendant may assert laches defense against an ongoing royalty should the case reach that stage).

55. *See, e.g., John Bean Techs. Corp. v. Morris & Assocs., Inc.*, 887 F.3d 1322, 1329, n.1, 126 U.S.P.Q.2d 1357 (Fed. Cir. 2018) (laches defense barred where the allegedly infringing activity for which patentee sought damages started on May 9, 2014, and patentee filed its complaint on June 19, 2014); *Exmark Mfg. Co. v. Briggs & Stratton Power Prods. Grp., LLC*, 879 F.3d 1332, 1353, 125 U.S.P.Q.2d 1421 (Fed. Cir. 2018) (affirming laches defense dismissal where patentee sought damages only for six-year statutory period).

56. *Glob. Traffic Techs. LLC v. Morgan*, 620 F. App’x 895, 903–05 (Fed. Cir. 2015).

first is that the marking requirement does not apply to process or method inventions.⁵⁷ The second exception is where the patentee does not itself make, use, or sell devices coming under the patent and does not have a licensee who does so either.⁵⁸

The notice provided by marking the product with the patent number is called “constructive notice.” The constructive notice provided by the patentee’s marking of the patented product with the patent number does not have to be 100% perfect to be effective; the patentee must show only that it consistently marks substantially all of its patented products.⁵⁹ Thus, minor incidents of nonmarking may not be fatal to notice.⁶⁰ Patent holders must also undertake reasonable efforts to ensure that their licensees comply with the marking requirements.⁶¹ While it is common to plead marking, where the marking has been done, failure to plead marking in the complaint is not necessarily fatal where other facts are pleaded alleging the infringer’s knowledge of the patent during the infringement period.⁶² The patentee bears the burden of proving compliance with the marking statute.⁶³ To avoid an unbounded universe of products for which the patentee would have to prove compliance, the infringer bears an initial burden of production to articulate the products it believes were sold unmarked by the patentee or its licensees.⁶⁴ Claim charts are not required for the infringer to meet its initial burden of production.⁶⁵ A patentee may not use disclaimer of a previously asserted patent claim to avoid the marking requirement retroactively.⁶⁶ Whether a failure to mark applies

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57. *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1334–35, 104 U.S.P.Q.2d 1241 (Fed. Cir. 2012); *Bandag, Inc. v. Gerrard Tire Co., Inc.*, 704 F.2d 1578, 1581 (Fed. Cir. 1983).
 58. *See Cameron Iron Works, Inc. v. Edward Valves, Inc.*, 175 F. Supp. 423, 122 U.S.P.Q. 497 (S.D. Tex. 1959), *aff’d*, 286 F.2d 933, 128 U.S.P.Q. 307 (5th Cir.), *cert. denied*, 368 U.S. 833 (1961).
 59. *SEB S.A. v. Montgomery Ward & Co.*, 594 F.3d 1360, 1378, 93 U.S.P.Q.2d 1617 (Fed. Cir. 2010); *Funai Elec. Co. v. Daewoo Elecs. Corp.*, 616 F.3d 1357, 1374–75, 96 U.S.P.Q.2d 1329 (Fed. Cir. 2010).
 60. *Id.*
 61. *Funai Elec. Co.*, 616 F.3d at 1374–75; *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1111–12, 39 U.S.P.Q.2d 1001 (Fed. Cir. 1996).
 62. *Sentry Prot. Prods., Inc. v. Eagle Mfg. Co.*, 400 F.3d 910, 73 U.S.P.Q.2d 1929 (Fed. Cir. 2005).
 63. *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1367–68, 124 U.S.P.Q.2d 1885 (Fed. Cir. 2017), *petition for cert. filed*, U.S. June 7, 2018 (No. 17-1645).
 64. *Id.* at 1368.
 65. *Id.* at 1368–69 (district erred by placing burden of compliance on infringer and concluding that it failed to meet its burden because it did not conduct a claim analysis of fourteen products it identified as unmarked).
 66. *Rembrandt Wireless Techs., LP v. Samsung Elecs. Co.*, 853 F.3d 1370, 1382–84, 122 U.S.P.Q.2d 1301 (Fed. Cir. 2017) (remanding to the district

on a claim-by-claim basis or on a patent-by-patent basis has not been squarely addressed by the Federal Circuit.⁶⁷

In the event of failure to so mark, no damages may be recovered by the patentee in any action for infringement prior to the date on which actual notice of the infringement was given to the infringer. Filing of a lawsuit constitutes actual notice of infringement as of the date the complaint was served.⁶⁸ The purpose of this statute is to give an incentive to the makers of patented products to give warning to the public that the products are protected by a patent.

Actual notice can be oral or written. It must amount to a definite charge of infringement and not merely the provision of facts from which the infringer could make the deduction that he was infringing. In one case, the court found the requisite notice from an admission of notice by the infringer to the patent owner.⁶⁹ In that case, the court made it clear that the infringer's conclusions or suspicion of infringement independent of any communication from the patent owner would be insufficient.⁷⁰

In general, in order to satisfy the actual notice required by the statute to trigger pre-suit damages, the patentee must provide the accused infringer:

- (1) the patent number,
- (2) identification of the accused product or process, and
- (3) an explicit assertion that the accused device or process is infringing the identified patent.

Actual notice is not provided merely by advising the infringer that the patent owner possesses patents on unspecified or unrelated products.⁷¹

court to limit pre-suit damages where the patentee withdrew from its infringement contentions and filed a statutory disclaimer in the U.S. Patent and Trademark Office disclaiming a prior asserted claim for which it failed to mark).

67. *Id.* at 1384.

68. *Gart v. Logitech, Inc.*, 254 F.3d 1334, 59 U.S.P.Q.2d 1290 (Fed. Cir. 2001) (infringer's subjective belief does not affect the adequacy of notice).

69. *Int'l Nickel Co. v. Ford Motor Co.*, 166 F. Supp. 551, 119 U.S.P.Q. 72 (S.D. N.Y. 1958).

70. *Id.* at 567.

71. For example, an accused infringer who was sent a list of patents and charged with infringement as to various clocks and calculators was not sufficiently notified as to infringement by the defendant's blood pressure monitor. *Refac Elecs. Corp. v. A&B Beacon Bus. Machs. Corp.*, 695 F. Supp. 753, 755, 8 U.S.P.Q.2d 2028 (S.D.N.Y. 1988) ("a clue that the . . . device . . . could be infringing is insufficient"); *Lans v. Dig. Equip. Corp.*, 252 F.3d 1320, 59 U.S.P.Q.2d 1057 (Fed. Cir. 2001) (notice must also identify the patentee).

§ 9:3 Lost Profits Damages

The damages statute provides that a prevailing claimant shall be awarded “damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer.”⁷² Thus, “reasonable royalty” damages are a floor for cases in which the patent owner cannot establish a higher measure of damages “adequate to compensate for the infringement.” The alternative to reasonable royalty damages usually sought by a patent owner will be its lost profits, since most manufacturing companies make a higher incremental profit margin than the level of royalty for which inventions are customarily licensed.

§ 9:3.1 Requirement for Causation Generally

The right to lost profits is conditioned upon showing causation, sometimes called a “but for” relationship, between the loss of profits claimed by the patent owner and the acts of infringement.

The requirement for causation has been explained by the Federal Circuit in *Rite-Hite*, as follows:

In *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 141 U.S.P.Q. (BNA) 681, 12 L. Ed. 2d. 457, 84 S. Ct. 1526 (1964), the Court discussed the statutory standard for measuring patent infringement damages, explaining:

The question to be asked in determining damages is “how much had the Patent Holder and Licensee suffered by the infringement. And that question [is] primarily: had the Infringer not infringed, what would Patent Holder-Licensee have made?”

377 U.S. at 507, 141 U.S.P.Q. (BNA) at 694 (plurality opinion) (citations omitted). This surely states a “but for” test. In accordance with the Court’s guidance, we have held that the general rule for determining actual damages to a patentee that is itself producing the patented item is to determine the sales and profits lost to the patentee because of the infringement. *Del Mar*, 836 F.2d at 1326, 5 U.S.P.Q.2d (BNA) at 1260; *see State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1577, 12 U.S.P.Q.2d (BNA) 1026, 1028 (Fed. Cir. 1989), *cert. denied*, 493 U.S. 1022 (1990) (award of damages may be split between lost profits as actual damages to the extent they are proven and a reasonable royalty for the remainder). To recover lost profits damages, the patentee must show a reasonable probability that, “but for” the infringement, it would have made the sales that were made by the infringer. *Id.*

72. 35 U.S.C. § 284.

King Instrument Corp. v. Otari Corp., 767 F.2d 853, 863, 226 U.S.P.Q. (BNA) 402, 409 (Fed. Cir. 1985), *cert. denied*, 475 U.S. 1016, 89 L. Ed. 2d 312, 106 S. Ct. 1197 (1986).⁷³

In a method patent case, a lost profits award on a patented method of installing an unpatented drilling platform was reversed because the patentee's damages expert had based lost profits on the value of the platform when other methods of installing could have been used.⁷⁴ In another case, an award to the patentee of lost profits was affirmed despite defendant's argument that it could have avoided infringement by manufacturing its accused product overseas, though it had not done so.⁷⁵

To recover lost profits, the plaintiff (and not a related company) must have actually experienced the lost profits. Thus, where two corporations, owned by the same parent, had been set up so that one subsidiary owned a patent but did not make or sell the product and the other subsidiary was a nonexclusive licensee under it, the subsidiary patent owner could not recover the lost profits incurred by the other subsidiary.⁷⁶

§ 9:3.2 Panduit Test for Lost Profits

A widely followed test for determining "but for" causation in the context of lost profits as the measure of damages was announced by the Sixth Circuit as follows:

The statute, 35 U.S.C. § 284, requires that the patent owner receive from the infringer "damages adequate to compensate for the infringement" . . . To obtain as damages the profits on sales he would have made absent the infringement, i.e., the sales made by the infringer, a patent owner must prove: (1) demand for the patented product, (2) absence of acceptable non-infringing substitutes, (3) his manufacturing and marketing capability to exploit the demand, and (4) the amount of the profit he would have made.⁷⁷

73. *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1545, 35 U.S.P.Q.2d 1065 (Fed. Cir.) (footnotes omitted), *cert. denied*, 516 U.S. 867, 116 S. Ct. 184 (1995).

74. *Riles v. Shell Expl. & Prod. Co.*, 298 F.3d 1302, 63 U.S.P.Q.2d 1819 (Fed. Cir. 2002).

75. *Edwards Lifesciences AG v. CoreValve, Inc.*, 699 F.3d 1305, 105 U.S.P.Q.2d 1039 (Fed. Cir. 2012).

76. *Poly-Am., L.P. v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 72 U.S.P.Q.2d 1685 (Fed. Cir. 2004); *see also* *Warsaw Orthopedic, Inc. v. NuVasive, Inc.*, 778 F.3d 1365, 1375, 113 U.S.P.Q.2d 1873 (Fed. Cir. 2015) (patentee may not claim as its own damages the lost profits of a related company).

77. *Panduit Corp. v. Stahlin Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1156, 197 U.S.P.Q. 726 (6th Cir. 1978).

Once the patentee provides evidence satisfying each *Panduit* factor, the burden shifts to the accused infringer to rebut the presumption that the patentee would have made some or all of the accused infringer's sales.⁷⁸

The Federal Circuit has characterized the *Panduit* test as being "accepted as a useful, but non-exclusive, way for a patentee to prove entitlement to lost profits damages."⁷⁹

In determining but-for causation, it is necessary to consider whether the infringing product has a disparately different price than the patent owner's product such that the products compete in different markets.⁸⁰ The importance of price was illustrated in a patent infringement case involving wind-surfing boards. The Federal Circuit found that an infringer competed in the market for relatively less expensive boards, while the patent holder competed only in the market for high-end boards.⁸¹ Consumers who did not have the option of the infringer's product, the court reasoned, would look to less expensive, noninfringing substitutes, not the patent holder's products. Accordingly, the patent holder could not establish that it would have made any portion of the infringer's sales but for the infringement.⁸² Disparate price alone, however, does not disqualify a patentee from proving lost profits. In a case involving content delivery network services, the Federal Circuit held that a patentee could recover lost profits damages even though the patentee's price was twice as high as the infringer's product where the market was relatively inelastic, the patentee competed directly with the infringer, and the damages expert had reduced the percentage of sales subject to lost profits by 25% to account for customers that would not buy the patentee's higher-priced product.⁸³

78. *Rite-Hite Corp.*, 56 F.3d at 1545.

79. *Id.*

80. *Kaufman Co. v. Lantech, Inc.*, 926 F.2d 1136, 1142, 17 U.S.P.Q.2d 1828 (Fed. Cir. 1991).

81. *BIC Leisure Prods., Inc. v. Windsurfing Int'l, Inc.*, 1 F.3d 1214, 1217–19, 27 U.S.P.Q.2d 1671 (Fed. Cir. 1993); *Mitutoyo Corp. v. Cent. Purchasing, LLC*, 499 F.3d 1284, 1291, 84 U.S.P.Q.2d 1001 (Fed. Cir. 2007) (lost profits unavailable because the parties competed for different market segments with very little price overlap).

82. *BIC Leisure Prods., Inc.*, 1 F.3d at 1217–19.

83. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 805 F.3d 1368, 1380–81, 116 U.S.P.Q.2d 1101 (Fed. Cir. 2015) (finding that patentee could recover lost profits despite disparate price where the market was relatively inelastic, parties competed directly, and the damages expert had reduced the percentage of sales subject to lost profits to account for price difference; holding applied only to the availability of lost profits, not the amount of lost profits, where the patentee had only properly challenged the availability of lost profits as a whole).

[A] Demand for Patented Product

The first of the *Panduit* factors, the existence of demand for the patented product, can usually be met by showing a substantial number of sales of the infringing product.⁸⁴ This showing can be augmented by the patent owner's evidence of its own sales of the patented product.⁸⁵

Cases in which the demand for the patented product cannot be shown are rare, and the demand factor is not usually the subject of much controversy in application of the *Panduit* test.

[B] Absence of Acceptable Noninfringing Substitutes

The *Panduit* factor of “absence of acceptable non-infringing substitutes” is often a vigorously contested issue, although the opportunity for an infringer to prevail on this issue is narrowed by some Federal Circuit rulings.

In general, “it is not necessary for the patent holder to negate all possibilities that a purchaser might have bought a different product or might have foregone the purchase altogether.”⁸⁶ Moreover, to be an acceptable substitute, the substitute generally must have the advantages of the patented feature. In *Uniroyal, Inc.*,⁸⁷ the Federal Circuit observed that

[m]ere existence of a competing device does not make that device an acceptable substitute. . . . A product lacking the advantages of that patented can hardly be termed a substitute ‘acceptable’ to the customer who wants those advantages.⁸⁸

However, an infringer may demonstrate that a substitute is acceptable by showing that customers purchased the patented products not because of the advantages springing from the claimed invention but for

84. *Gyromat Corp. v. Champion Spark Plug Co.*, 735 F.2d 549, 552, 222 U.S.P.Q. 4 (Fed. Cir. 1984); *see also* *Presidio Components Inc. v. Am. Tech. Ceramics Corp.*, 702 F.3d 1351, 105 U.S.P.Q.2d 1417 (Fed. Cir. 2012).

85. *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1578, 12 U.S.P.Q.2d 1026 (Fed. Cir. 1989), *cert. denied*, 493 U.S. 1022, 110 S. Ct. 725 (1990); *Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229, 1241–42, 123 U.S.P.Q. 2d 1766 (Fed. Cir. 2017) (finding that demand for infringer’s inspection systems at least before period of allegedly infringing sales and sales of patentee’s own inspection system satisfied “demand” *Panduit* factor).

86. *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1577, 24 U.S.P.Q.2d 1321 (Fed. Cir. 1992).

87. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 939 F.2d 1540, 1545–46, 19 U.S.P.Q.2d 1432 (Fed. Cir. 1991).

88. *Id.*, 939 F.2d at 1545–46.

other reasons, such as market power or other nontechnical reasons.⁸⁹ Similarly, an infringer may demonstrate the existence of acceptable noninfringing substitutes by showing that other factors, such as significant price-feature tradeoffs, or strong brand loyalty to the defendant or aversion to the plaintiff, would override a customer's preference for a product with the patented features or advantages.⁹⁰ The Federal Circuit has reiterated that merely showing that a non-infringing product competes with the patented product is insufficient to show acceptability; instead, the proper question is what products the customers who purchased the infringer's products with the particular feature would have bought if the infringer had not been selling that product.^{90.1} A patentee cannot meet its burden to show the absence of acceptable, available noninfringing substitutes by comparing the noninfringing alternative to the infringing product; rather, the correct comparison is between the noninfringing alternative and the patent owner's product in the hypothetical market absent the infringing product.⁹¹

In order to be considered an available noninfringing substitute, the candidate alternative need not have actually have been on the market at the time of the infringement.⁹² However, if an alleged noninfringing substitute was not on the market, the burden is on the accused

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89. *See* SlimFold Mfg. Co. v. Kinkead Indus., Inc., 932 F.2d 1453, 1458, 18 U.S.P.Q.2d 1842 (Fed. Cir. 1991) (neither plaintiff's nor defendant's market share changed significantly after the "new" patented product was introduced); Gargoyles, Inc. v. United States, 113 F.3d 1572, 1578, 42 U.S.P.Q.2d 1760 (Fed. Cir. 1997) (although lacking the patented product's benefits, substitute was adequate for government contractor's use and, therefore, acceptable); Ericsson, Inc. v. Harris Corp., 352 F.3d 1369, 69 U.S.P.Q.2d 1109 (Fed. Cir. 2003) (noninfringing substitutes requirement may alternatively be satisfied by proof of market share).
90. Smith & Nephew Inc. v. Arthrex, Inc, 603 F. App'x 981, 987–89 (Fed. Cir. 2015).
- 90.1. *Id.* (noting that "if purchasers are motivated to purchase because of particular features available . . . from the patented product, products without such features—even if otherwise competing in the marketplace—would not be acceptable noninfringing substitutes") (quoting Standard Havens Prods., Inc. v. Gencor Indus., Inc., 953 F.2d 1360, 1373, 21 U.S.P.Q.2d 1321 (Fed. Cir. 1991)); *see also* Apple, Inc. v. Samsung Elecs. Co., 786 F.3d 983, 1004 (Fed. Cir. 2015).
91. Presidio Components Inc. v. Am. Tech. Ceramics Corp., 875 F.3d 1369, 1380–81 (Fed. Cir. 2017) (reversing lost profits award where the patentee relied on evidence comparing the defendant's non-infringing 560L capacitor to its infringing 550 capacitors, instead of showing the 560L capacitor was an unacceptable substitute to the patentee's competing product).
92. Grain Processing Corp. v. Am. Maize-Prods. Co., 185 F.3d 1341, 1356, 51 U.S.P.Q.2d 1556 (Fed. Cir. 1999) (with proper economic proof of availability, an acceptable substitute not on the market during the infringement

infringer to show that the noninfringing substitute was in fact “available” during the damages period.⁹³

Where the patent owner has granted licenses, the licensees’ products are plainly noninfringing and may also be acceptable. A product licensed by virtue of a voluntary settlement was not a noninfringing substitute during the period prior to the license, but it became one after the license began.⁹⁴ After such a license, while there may still be availability of lost profits on some portion of the defendant’s sales, the market share that would have been taken by the licensed noninfringing substitute must be taken into account, and only reasonable royalty damages are available on that portion of the infringer’s sales.⁹⁵

[C] Capacity

The third of the *Panduit* factors is the patent owner’s manufacturing and marketing capability to satisfy the additional demand represented by the infringer’s sales.

This analysis involves adding together the patentee’s sales and the lost sales made by the infringer and determining whether the patentee would have had the ability to meet the total demand if the infringement had not occurred. Of course, it would be unrealistic to expect that the patent owner should be able to have met the infringer’s sales instantly when, in the absence of the infringement, it would have built up its capacity at a slower rate to meet expanding demand. In demonstrating capacity, the patent owner may properly rely upon its existing capacity estimate, its ability to increase its capacity by an increase in the number of shifts worked or by subcontracting out work, and its ability to expand its facilities to meet the increased demand.⁹⁶

The patent owner’s proof of capacity may be attacked in a number of ways. In one case, the time-consuming capital investment required of the plaintiff to meet the projected quantity of the infringer’s sales

may become part of the lost profits calculus and therefore limit or preclude those damages); *Fiskars, Inc. v. Hunt Mfg. Co.*, 279 F.3d 1378, 61 U.S.P.Q.2d 1851, 1854–55 (Fed. Cir. 2002) (further discussing *Grain Processing*); *but see Micro Chem., Inc. v. Lextron, Inc.*, 318 F.3d 1119, 65 U.S.P.Q.2d 1695 (Fed. Cir. 2003) (rejecting a claim of availability of a noninfringing substitute where evidence showed the defendant did not have the necessary equipment, know-how, and experience to make the alternative product at the time of infringement).

93. *Grain Processing*, 185 F.3d at 1353.

94. *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1222–23, 36 U.S.P.Q.2d 1225 (Fed. Cir. 1995), *cert. denied*, 520 U.S. 1115, 117 S. Ct. 1243 (1997).

95. *Id.*

96. *Ristvedt-Johnson, Inc. v. Brandt, Inc.*, 805 F. Supp. 557, 562 (N.D. Ill. 1992).

limited the recovery for infringement.⁹⁷ Despite evidence that the plaintiff could have raised the capital necessary to meet the increased demand, the court also relied on the plaintiff's actual conservative business practices and decision-making history in determining that the plaintiff would not have met 100% of the infringer's output.⁹⁸

Forecasts of growth rates have been allowed in determining capacity. For example, a court relied on an expert's testimony of the plaintiff's growth rates in 1988 and 1989, concluding that the company could have increased its capacity from ninety-six units per year in 1988 to 500 units per year in 1992.⁹⁹

There is no single dispositive method for meeting the requirement to prove capacity. Moreover, it is not necessary to prove with absolute certainty that capacity could be met.¹⁰⁰

[D] Quantum of Lost Profits

Although denominated as the fourth *Panduit* factor, the amount of lost profits is not a causation factor. Accordingly, it is separately discussed below in section 9:4.

[E] *Panduit* Test Satisfies Apportionment Principles

In 2017, the Federal Circuit held that the *Panduit* test can satisfy the principle of apportionment and render any further apportionment of a patentee's lost profits unnecessary.¹⁰¹ In *Mentor Graphics Corp. v. EVE-USA, Inc.*, the accused infringer argued that in addition to satisfying the *Panduit* test, a patentee must further apportion its lost profits to capture only the portion attributable to the patented invention. The court rejected this argument, holding that once a patentee satisfies the *Panduit* test, no further apportionment of lost profits is

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- 97. *Polaroid Corp. v. Eastman Kodak Co.*, 16 U.S.P.Q.2d 1481, 1510 (D. Mass. 1990).
 - 98. *Id.*; *Gargoyles*, 113 F.3d at 1577 (an expectation of lower profit margins and a lower quality unacceptable for government use as the result of hypothetical increased output precluded a finding of capacity to meet demand).
 - 99. *Fonar Corp. v. Gen. Elec. Co.*, 107 F.3d 1543, 1553–54, 41 U.S.P.Q.2d 1801 (Fed. Cir.), *cert. denied*, 522 U.S. 908 (1997).
 - 100. A general showing of an increase in market share, even with a contrary showing of production backlogs, was sufficient for the court to infer capacity. *Micro Motion, Inc. v. Exac Corp.*, 761 F. Supp. 1420, 1425, 19 U.S.P.Q.2d 1001 (N.D. Cal. 1991); *see also Yarway Corp. v. Eur-Control USA, Inc.*, 775 F.2d 268, 276–77, 227 U.S.P.Q. 352 (Fed. Cir. 1985); *W.L. Gore & Assocs., Inc. v. Carlisle Corp.*, 198 U.S.P.Q. 353 (D. Del. 1978).
 - 101. *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1286–88, 122 U.S.P.Q.2d 1120 (Fed. Cir. 2017), *petition for cert. filed*, U.S. Nov. 30, 2017 (No. 17-804).

required. “In this case, apportionment was properly incorporated into the lost profits analysis . . . through the *Panduit* factors.”¹⁰² The court left to another day the question of whether a different theory of but-for causation for lost profits damages adequately addresses apportionment principles.¹⁰³

§ 9:3.3 Alternatives to Panduit Test

Although the *Panduit* test remains the most commonly used standard for establishing “but for” causation, the Federal Circuit has pointed out that it is not the exclusive test of the causation factor required for a lost profits measure of recovery.¹⁰⁴ There are other bases for establishing causation.

For example, a finding of causation may be inferred when the patentee and infringer are the only two suppliers in a market. The Federal Circuit made such an inference in the *Lam* case.¹⁰⁵ There, the court stated that the plaintiff’s showing of decreased sales coinciding with the infringing conduct, within the two-supplier market, was sufficient to infer causation, without requiring application of the *Panduit* test.¹⁰⁶ The court stated that the patentee’s burden for showing causation is not an absolute one, but rather a burden of reasonable probability.¹⁰⁷ Once the patentee establishes a two-supplier market, the burden of production shifts to the infringer to show the lack of but-for causation.¹⁰⁸

In another case, although it relied on the *Panduit* test, the district court stated the following:

Where the infringing product is an identical copy, or a virtually identical copy, of the commercial version of the patented invention, and particularly where the infringing product and the commercial version of the patented invention have common advantages over different, noninfringing—albeit perhaps “competing”—products, it is reasonable to infer that the patentee probably would have made the sale but for the infringing sale.¹⁰⁹

102. *Id.* at 1288.

103. *Id.*

104. *Rite-Hite Corp. v. Kelly Co.*, 56 F.3d 1538, 1545, 35 U.S.P.Q.2d 1065 (Fed. Cir. 1995).

105. *Lam, Inc. v. Johns-Manville Corp.*, 718 F.2d 1056, 1065, 219 U.S.P.Q. 670 (Fed. Cir. 1983).

106. *Id.*

107. *Id.*

108. *Micro Chem. v. Lextron*, 318 F.3d 1119, 1125 (Fed. Cir. 2003).

109. *AMP, Inc. v. Lantrans, Inc.*, 22 U.S.P.Q.2d 1448, 1452 (C.D. Cal. 1991).

§ 9:3.4 **Lost Profits Based on Market Share**

The earlier lost profits discussion focused on essentially a two-seller market for the patented product, namely, the patentee and the infringer. In such circumstances, in the absence of noninfringing alternatives, a reasonable probability may be found that but for the infringer's sales, all the customers would have purchased from the patent owner. Where there are multiple competitors who do not infringe the patent or are licensees under the patent, the possibility exists that, absent the defendant infringer, a share of the sales of the defendant may have been taken by such noninfringing suppliers or by licensees of the patent owner, preventing a "but-for" conclusion for all of the infringer's sales.

In such a situation, the Federal Circuit has embraced a market share approach in which the patent owner is entitled to lost profits on its market share of the relevant market applied to the sales of the accused infringer, with damages on the remainder of the infringer's sales being assessed on a reasonable royalty basis.¹¹⁰ In that case, involving a patent on insulated water heaters, the court affirmed the trial court's blended damages award to the patentee, State Industries, of (1) its incremental profit on foam-insulated gas water heaters based on State's share of Mor-Flo's infringing sales and (2) reasonable royalty on the remainder of Mor-Flo's infringing sales.¹¹¹

The *State Industries* market share approach is significant because it permits lost profits recovery even where noninfringing alternatives are available.

§ 9:3.5 **Lost Profits or Infringer's Profits in a Design Patent Case**

It is well settled that a patent owner may not recover an infringer's profits for infringement of a utility patent, but may recover only its own lost profits.¹¹² However, a winning design patent owner is entitled

110. *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1577, 12 U.S.P.Q.2d 1026 (Fed. Cir. 1989), *cert. denied*, 493 U.S. 1022, 110 S. Ct. 725 (1990); *Crystal Semiconductor Corp. v. TriTech Microelectronics Int'l, Inc.* 246 F.3d 1336, 57 U.S.P.Q.2d 1953 (Fed. Cir. 2001).

111. *State Indus., Inc.*, 883 F.2d at 1577.

112. *Robert Bosch, LLC v. Pylon Mfg. Corp.*, 719 F.3d 1305, 1310 n.1, U.S.P.Q.2d 1113 (Fed. Cir. 2013) (en banc) ("An infringer's profits are, of course, no longer an available remedy for the infringement of a utility patent."); *see also Atlas-Pac. Eng'g Co. v. Geo. W. Ashlock Co.*, 339 F.2d 288, 290, 144 U.S.P.Q. 55 (9th Cir. 1964) (patent holder may recover whatever damages it incurred because of the infringement but profits made by infringer are not recoverable as such), *cert. denied*, 382 U.S. 842, 86 S. Ct. 55 (1965).

to an award of the infringer's profits under 35 U.S.C. § 289. Section 289, which is entitled "Additional remedy for infringement of design patent," allows patentees to claim either \$250 or the infringer's "total profit" on sales of "any article of manufacture" to which the patented design was applied.¹¹³ A design patentee may choose to receive an award under 35 U.S.C. § 284 or § 289, whichever is larger.¹¹⁴ However, a design patentee may not recover both an infringer's profits and additional damages under section 284.¹¹⁵

When the same infringing product also infringes a utility patent owned by the same patentee, the patentee may recover only once for the infringement, receiving whichever award is higher.¹¹⁶

In 2016, the Supreme Court, in *Samsung Electronics Co. v. Apple, Inc.* addressed what constitutes an "article of manufacture" in the context of section 289.^{116.1} In that case, the Supreme Court rejected the Federal Circuit's narrow reading of the term "article of manufacture" to cover only an end product sold to a consumer. Rather, the Court found that "article of manufacture" is broad enough to encompass both the end product sold to the consumer (such as a smartphone) and a component of the end product, even if the component is not sold separately to consumers.^{116.2} As such, recovery of an infringer's profits may be limited to the profits on a component of a multi-component product if the "article of manufacture" is found to be the component, and not the end product itself. However, the Court declined to resolve whether the "article of manufacture" in Samsung's case was the smartphone or a particular smartphone component. As the Court explained, doing so "would require us to set out a test for identifying the relevant article of manufacture at the first step of the § 289 damages inquiry and to parse the record to apply that test in this case."¹¹⁷ Thus, the Court remanded the determination of the relevant article of manufacture and corresponding damages. Following further remand from the Federal Circuit, the district court determined that a new trial on damages was necessary.¹¹⁸ The district court adopted the following four-factor test for determining the article of manufacture,

113. 35 U.S.C. § 289.

114. *Nordock, Inc. v. Sys. Inc.*, 803 F.3d 1344, 1352–53, 116 U.S.P.Q.2d 1650 (Fed. Cir. 2015).

115. *Catalina Lighting, Inc. v. Lamps Plus, Inc.*, 295 F.3d 1277, 1291, 63 U.S.P.Q.2d 1545 (Fed. Cir. 2002).

116. *Id.* at 1291.

116.1. *Samsung Elecs. Co. v. Apple Inc.*, 137 S. Ct. 429, 433–36, U.S.P.Q.2d 1749 (2016).

116.2. *Id.* at 435–36.

117. *Id.* at 436.

118. *Apple Inc. v. Samsung Elecs. Co. Ltd.*, 2017 WL 4776443, 124 U.S.P.Q.2d 1917 (N.D. Cal. Oct. 22, 2017).

based on one proposed by the United States in briefing to the Supreme Court:

- The scope of the design claimed in the plaintiff's patent, including the drawings and written description;
- The relative prominence of the design within the product as a whole;
- Whether the design is conceptually distinct from the product as a whole; and
- The physical relationship between the patented design and the rest of the product, including whether the design pertains to a component that a user or seller can physically separate from the product as a whole, and whether the design is embodied in a component that is manufactured separately from the rest of the product, or if the component can be sold separately.¹¹⁹

The district court also held that the patentee has the burden of persuasion as to the relevant article of manufacture and the total profit for that article.¹²⁰ Once the patentee satisfies its initial burden of production to identify the article of manufacture and prove the amount of profit, the burden of production shifts to the accused infringer to provide evidence supporting a different article of manufacture and any deductible expenses.¹²¹

§ 9:4 Calculation of Amount of Lost Profits

There are several components that may contribute to the patent owner's total lost profits, as described below.

§ 9:4.1 Lost Profits on Sales Lost to the Infringing Products

The most common basis for calculation of a patent owner's lost profits is its lost profits on its own lost sales.

In calculating the profits that the patent owner lost, where the owner is a maker of a product competing with the infringing product, a common methodology is to attribute to the owner all or a portion of the number of infringing products sold by the infringer and to compute the patent owner's incremental profit per unit on its own sales. Then multiplying the number of units sold by the infringer subject to lost profits by the patent owner's incremental profit per unit determines

119. *Id.* at *11–12.

120. *Id.* at *13–14.

121. *Id.* at *14–15.

the profits that the owner would have made on those sales (subject to adjustments, for example, for lost profits based on market share). Although speculation about the amount of lost profits is improper, the amount need not be proved with exact precision.¹²² The patent owner is not required to show that it would have bid on every sale that an infringer made.¹²³ A patent owner may recover its lost profits even though the infringer made no profit on its infringing activity.¹²⁴

The patent owner's lost profits are measured as its incremental profits and not operating profits. Incremental profits are the additional profits the patentee would have made in making the additional sales. In most decisions regarding lost profits, it is considered improper to allocate a portion of fixed or overhead costs to the hypothetically increased sales. All fixed costs are considered to have been charged to the sales that the patent owner actually made. Charging them again would leave the plaintiff less than fully compensated for the infringement. As a trial court has observed, "[t]hese fixed overhead expenses would have neither increased nor decreased had plaintiff's production incorporated the defendant's additional sales. Plaintiff's fixed overhead expenses had already been amortized over and paid out of plaintiff's actual sales."¹²⁵ Although the profit per unit is calculated on an incremental profits basis, the damage award must be reduced by the amount of any increase in fixed capital, properly amortized, needed to expand the capacity to satisfy the infringing sales.¹²⁶ In using the patentee's incremental profits to calculate lost profits, the calculation does not usually give any consideration to the circumstance that the infringer's sales may have been at a lower price, because the object of

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122. *Bio-Rad Labs., Inc. v. Nicolet Instrument Corp.*, 739 F.2d 604, 616, 222 U.S.P.Q. 654 (Fed. Cir. 1984), *cert. denied*, 482 U.S. 915, 107 S. Ct. 3187 (1987).
123. *Standard Havens Prods. v. Gencor Indus., Inc.*, 953 F.2d 1360, 1373, 21 U.S.P.Q.2d 1321 (Fed. Cir. 1991); *Gyromat Corp.*, 735 F.2d at 554.
124. *Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229, 1242–44, 123 U.S.P.Q.2d 1766 (Fed. Cir. 2017) (patentee's evidence that it failed to secure a contract with Union Pacific, and its expert's analysis of that contract, provided sufficient evidence for jury to award lost profits, even though the defendant made no infringing sales or profits under the contract).
125. *Saf-Gard Prods., Inc. v. Serv. Parts, Inc.*, 491 F. Supp. 996, 1001, 206 U.S.P.Q. 976 (D. Ariz. 1980); *see also Milgo Elec. Corp. v. United Bus. Comm'ns, Inc.*, 623 F.2d 645, 206 U.S.P.Q. 481 (10th Cir.), *cert. denied*, 449 U.S. 1066, 101 S. Ct. 794 (1980); *Universal Athletic Sales Co. v. Am. Gym, Recreational & Athletic Equip. Corp.*, 480 F. Supp. 408, 205 U.S.P.Q. 840 (W.D. Pa. 1979).
126. *See Andrew Corp. v. Gabriel Elecs., Inc.*, 785 F. Supp. 1041, 1049–51, 23 U.S.P.Q.2d 1019 (D. Me. 1992) (plaintiff's costs rose as its sales increased, despite their categorization as "fixed" overhead; damages had to be lessened accordingly).

the statute is to make the patentee whole for the damages it has suffered.¹²⁷

§ 9:4.2 Lost Profits on Lost Sales of Unpatented Products Sold by the Patentee

A patentee may recover lost profits on its lost sales of products that compete with the infringing products even if the patentee's own products are not covered by the patent at issue. In a leading case, *Rite-Hite Corp. v. Kelley Co.*,¹²⁸ the patent owner was permitted to recover its lost profits due to the infringement by the defendant, notwithstanding that the profits were lost on a product of the patentee not covered by its patent. In *Rite-Hite*, the patentee made and marketed unpatented "ADL-100" devices, for securing a vehicle to a loading dock. The patentee lost sales of these unpatented products to the defendant's "Truk Stop" device that was found to infringe Rite-Hite's patent. Rejecting the arguments of the infringer, Kelley, that compensability must be restricted to profits lost on products sold by the patentee covered by its patent, the court reasoned as follows:

Kelley has thus not provided, nor do we find, any justification in the statute, precedent, policy, or logic to limit the compensability of lost sales of a patentee's device that directly competes with the infringing device if it is proven that those lost sales were caused in fact by the infringement. Such lost sales are reasonably foreseeable and the award of damages is necessary to provide adequate compensation for infringement under 35 U.S.C. § 284.¹²⁹

§ 9:4.3 Lost Profits on Lost Ancillary Product Sales by the Patentee

In addition to recovering lost profits on lost sales of the patent owner's product that competes with the infringing product, a patentee may also be able to recover lost profits on sales of ancillary or conveyed products that it would have sold with the additional sales of its competing product. The Federal Circuit has explained that lost profits are available on such ancillary or conveyed products only if such products meet the "functional unit test."¹³⁰ Not all ancillary sales

127. See *Saf-Gard Prods.*, 491 F. Supp. at 1009 ("The fundamental concepts underlying an award of lost profits [are] based upon the plaintiff's original, uneroded selling price. . .").

128. *Rite-Hite Corp.*, 56 F.3d at 1546-47; see also *Scripto-Tokai Corp. v. Gillette Co.*, 788 F. Supp. 439, 441, 22 U.S.P.Q.2d 1678 (C.D. Cal. 1992).

129. *Rite-Hite Corp.*, 56 F.3d at 1548-49.

130. See, e.g., *id.* at 1549-51; *Kalman v. Berlyn Corp.*, 914 F.2d 1473, 1485, 16 U.S.P.Q.2d 1093, 1102 (Fed. Cir. 1990) (affirming award of damages for

accompanying a sale of the patent owner's competitive product satisfy this test. In *Rite-Hite*,¹³¹ the court set aside an award of lost profits on "dock leveler" devices that Rite-Hite frequently sold with its competitive ADL-100 restraint devices, finding that

[t]he facts of this case do not meet this [functional unit] requirement. The dock levelers operated to bridge the gap between a loading dock and a truck. The patented vehicle restraint operated to secure the rear of the truck to the loading dock. Although the two devices may have been used together, they did not function together to achieve one result and each could effectively have been used independently of each other.¹³²

The Federal Circuit addressed the functional unit test again in *Juicy Whip, Inc. v. Orange Bang, Inc.*, holding that a patented beverage dispenser and unpatented beverage syrup used to create the illusion of a post-mix beverage dispenser at issue in the patent constituted a functional unit.¹³³ As the court explained, "[t]he dispenser and the syrup are in fact analogous to parts of a single assembly or complete machine, as the syrup functions together with the dispenser to produce the visual appearance that is central to" the patent.¹³⁴ The court rejected the notion that there was no functional relationship between the beverage dispenser and syrup because the two items could be used with other companies' products (that is, other syrups could be used in Juicy Whip's dispenser and other dispensers could use Juicy Whip's syrups). "Despite some limited interchangeability . . . the two items do 'function together to achieve one result.' The dispenser needs syrup and the syrup is mixed in a dispenser."¹³⁵ Thus, while lost profits may be available on unpatented products that are sold with the patent owner's product, they will be recoverable only when the ancillary products together with the patent owner's competitive

filter screens used with a patented filtering device); *Kori Corp. v. Wilco Marsh Buggies & Draglines, Inc.*, 761 F.2d 649, 656, 225 U.S.P.Q. 985, 989 (Fed. Cir.) (affirming award of damages for unpatented uppers of an improved amphibious vehicle having a patented pontoon structure), *cert. denied*, 474 U.S. 902 (1985).

131. *Rite-Hite Corp.*, 56 F.3d at 1550–51.

132. *Id.*

133. *Juicy Whip, Inc. v. Orange Bang, Inc.*, 382 F.3d 1367, 72 U.S.P.Q.2d 1385 (Fed. Cir. 2004) (it is not fatal to this principle that the unpatented material, unpatented syrup used with the patented orange drink dispenser, may have some usability independent of use in the patented device).

134. *Id.* at 1372.

135. *Id.* (quoting *Rite-Hite Corp.*, 56 F.3d at 1551) (citations omitted).

product constitute a functional unit.¹³⁶ Products sold together solely for convenience or business advantage fail to meet this test.¹³⁷

Some district courts have also held that, to recover lost profits on conveyed sales, the patentee must also show that its product was the basis of demand for the ancillary product or part to receive lost profits on such ancillary products or parts.¹³⁸ The Federal Circuit, however, has never adopted that test. Moreover, at least one district court has explicitly rejected such a requirement.¹³⁹

While the patent owner's expectation of profit on sales of conveyed products can be given weight in the analysis of reasonable royalties as factor 6 of the *Georgia-Pacific* factors (see section 9:5.3), they do not qualify for a lost profits measure of recovery unless they meet the functional unit test.¹⁴⁰

§ 9:4.4 Lost Profits Due to Price Erosion

In some cases, infringement of a patent has caused the patent owner to reduce its prices or not to raise prices to meet the infringement, thereby causing it an additional component of lost profits not only on the sales which were lost to the infringer but also on the patent owner's own sales at the reduced price. This type of lost profits is commonly referred to as price erosion damages. In a case where the patentee's own sales are much more substantial than the infringer's sales, the lost profits damages attributable to price erosion can exceed the lost profits damages attributable to the patent owner's lost sales.

136. *Id.*

137. *Rite-Hite Corp.*, 56 F.3d at 1550 (“Our precedent has not extended liability to include items that have essentially no functional relationship to the patented invention and that may have been sold with an infringing device only as a matter of convenience or business advantage.”); see also *Am. Seating Co. v. USSC Grp., Inc.*, 514 F.3d 1262, 1268–69, 85 U.S.P.Q.2d 1683 (Fed. Cir. 2008) (finding no functional relationship existed between a patented restraint system and unpatented passenger seats where two items were purchased together only for convenience and “one-stop shopping,” and thus “solely because of consumer demand,” not because of any requirement that the two items function together).

138. *Electro-Mech. Corp. v. Power Distribution Prods. Inc.*, 970 F. Supp. 2d 485, 492–93, (W.D. Va. 2013) (rejecting attempt to base lost profits on sales of entire longwall power systems, rather than only the systems' draw-out tray devices contained therein); *Good Tech. Corp. v. MobileIron, Inc.*, No. 5:12-cv-05826-PSG, 2015 WL 3882608, at *4–5 (N.D. Cal. June 23, 2015).

139. *Masimo Corp. v. Philips Elecs. N. Am. Corp.*, Nos. 09-80-LPS and 11-742-LPS, 2016 WL 6542726, at *3–4, *9 (D. Del. Oct. 31, 2016).

140. *Rite-Hite Corp. v. Kelley Co.*, 774 F. Supp. 1514, 1538, 21 U.S.P.Q.2d 1801, 1820 (E.D. Wis. 1991), *aff'd in part, vacated in part, and remanded*, 56 F.3d 1538, 35 U.S.P.Q.2d 1065 (Fed. Cir.), *cert. denied*, 516 U.S. 867, 116 S. Ct. 184 (1995).

Erosion of price may be inferred, much as causation may be, when a patentee lowers its prices in a two-supplier market. The Federal Circuit found that in a predominantly two-supplier market, where the patentee lowered its prices to meet the infringer's competition, an award based on reduced profits was proper.¹⁴¹ Although competition with the infringer was not the sole reason for the price reduction, it was sufficient to support an award based on price erosion. Price erosion includes loss of profits caused by reduced sales prices and special discounts the plaintiff had to give in order to remain competitive.¹⁴² An expert's testimony that the patentee could have maintained a higher price can support an award of lost profits.¹⁴³ Price erosion evidence may also be provided by testimony from the infringer's customers, for example, that they would not have switched to assertedly noninfringing alternatives to avoid the plaintiff's higher prices.¹⁴⁴ Price erosion may also be shown by similarities between a benchmark market and the market in which price erosion is alleged.¹⁴⁵ In each case, a plaintiff must take into account the quantity of products the patentee would have been able to sell at such higher prices, by including, for example, a price elasticity analysis.¹⁴⁶

A patent owner can also argue for continuing price erosion damages based on difficulty in reestablishing former prices after having to reduce prices in response to infringing sales. In one case, the Federal Circuit upheld a damages award where the damages for continuing price erosion were about one-and-a-half times those for lost profits and past price erosion combined.¹⁴⁷

Price erosion damages are, however, often difficult to prove because the patent owner may have reduced its prices for other reasons than

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141. *Lam, Inc.*, 718 F.2d at 1065. *But cf.* *Vulcan Eng'g Co. v. FATA Aluminum Inc.*, 278 F.3d 1366, 61 U.S.P.Q.2d 1545 (Fed. Cir. 2002) (remand for fact finding whether but for the infringement the patent owner could have obtained a higher price on a bid).
 142. *TWM Mfg. Co. v. Dura Corp.*, 789 F.2d 895, 902, 229 U.S.P.Q. 525 (Fed. Cir.), *cert. denied*, 479 U.S. 852, 107 S. Ct. 183 (1986).
 143. *Kalman*, 914 F.2d at 1478, 1485 (award of 15% above sales price for maintenance of depressed prices based on such expert testimony).
 144. *SynQor, Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 106 U.S.P.Q.2d 1052 (Fed. Cir. 2013).
 145. *Ericsson, Inc. v. Harris Corp.*, 352 F.3d 1369, 1378–79, 69 U.S.P.Q.2d 1109 (Fed. Cir. 2003).
 146. *Crystal Semiconductor Corp. v. TriTech Microelectronics Int'l*, 246 F.3d 1336, 1357–59, 57 U.S.P.Q.2d 1953 (Fed. Cir. 2001).
 147. *Fiskars, Inc. v. Hunt Mfg. Co.*, 221 F.3d 1318, 1324–25, 55 U.S.P.Q.2d 1569 (Fed. Cir. 2000) (in light of difficulty in attempting to reestablish former prices after having to reduce prices in response to infringing sales, an award of about \$1.8 million for future price erosion was not speculative).

the infringement—for example, to meet competition from noninfringing devices or from infringers other than defendant or to reduce prices because of other economic factors such as increased manufacturing efficiencies, reduction in raw material costs, or increased sales resulting in reduced overhead per unit.¹⁴⁸

§ 9:5 Reasonable-Royalty Measure of Recovery

The damages statute provides that damages shall be adequate to compensate for the infringement but not less than a reasonable royalty. Although the patent statute grants patentees the right to seek damages in an amount no less than a reasonable royalty, a patentee who expressly waives its right to reasonable royalty damages will be limited to the other damages it can prove under 35 U.S.C. § 284.¹⁴⁹

Reasonable royalty damages can be expressed as a lump sum, or a rate times a base, or a combination thereof. A common method of determining a reasonable royalty is the “hypothetical negotiation approach” (described below), but multiple methods for evaluating a reasonable royalty exist and can be used to support a reasonable royalty. As the Federal Circuit explained in *Apple Inc. v. Motorola, Inc.*:

[T]here may be more than one reliable method for estimating a reasonable royalty. For example, a party may use the royalty rate from sufficiently comparable licenses, value the infringed features based upon comparable features in the marketplace, or estimate the value of the benefit provided by the infringed features by a [sic] comparing the accused product to non-infringing alternatives. All approaches have certain strengths and weaknesses and, depending upon the facts, one or all may produce admissible testimony in a single case. It is common for parties to choose different, reliable approaches in a single case and, when they do, the relative

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148. Exemplary cases in which price erosion damage claims failed include *BIC Leisure Prods.*, 1 F.3d at 1220 (finding that market forces other than competition with the infringer, namely competition with noninfringers, forced the patentee to lower prices, thus denying a finding of eroded prices); *Minco, Inc. v. Combustion Eng'g, Inc.*, 95 F.3d 1109, 1120, 40 U.S.P.Q.2d 1001 (Fed. Cir. 1996) (where there was evidence of price fluctuation and that the plaintiff was a leader in price-cutting in the market); *Vulcan Eng'g Co.*, 278 F.3d at 1377.
149. *Promega Corp. v. Life Techs. Corp.*, 875 F.3d 651, 659–60 (Fed. Cir. 2017) (finding that patentee had expressly waived its right to any award based on a reasonable royalty and therefore could not seek reasonable royalty damages after its lost profits award was vacated).

strengths and weaknesses may be exposed at trial or attacked during cross-examination.¹⁵⁰

In general, opinions of an expert witness to prove the quantum of damages must be reliable and tied to the facts of the case. For example, a rule of thumb that a baseline point for assessing reasonable royalty damages would be 25% of the licensee's expected profit rate on the patented item has been held inadmissible "under *Daubert* and the Federal Rules of Evidence, because it fails to tie a reasonable royalty base to the facts of the case."¹⁵¹

§ 9:5.1 Reasonable Royalty Based on Hypothetical Pre-Infringement Negotiations

A royalty rate may be based upon, but not limited to, an established royalty. If there is no established royalty, the most common approach for determining a reasonable royalty is based upon the result of a hypothetical negotiation between the plaintiff and defendant before the infringement began.¹⁵² Such hypothetical negotiations do not include any consequential damages that may occur due to the infringer's refusal to take a license.¹⁵³ Such damages would simply be a species of lost profits.

The Federal Circuit has recognized that, in the case of a patentee who would not be willing to license the invention, a reasonable royalty is a fiction that could damage the patentee by placing the infringer in a no-lose position in which it would be entitled in effect to a compulsory license for past damages.¹⁵⁴ The Federal Circuit has also held that because the hypothetical negotiation takes place at the time of the first infringement, actual licenses negotiated years after that time may be

150. *Apple, Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1315, 110 U.S.P.Q.2d 1695 (Fed. Cir. 2014) (citations omitted), *overruled on other grounds by Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015).

151. *Uniloc USA Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1315, 98 U.S.P.Q.2d 1203 (Fed. Cir. 2011). However, a reference to the flawed 25% rule in a damage expert's damages conclusion did not require it to be set aside where the expert's conclusion was supported by other factors independent of the flawed rule. *Energy Transp. Grp., Inc. v. William Demant Holding A/S*, 697 F.3d 1342, 105 U.S.P.Q.2d 1061 (Fed. Cir. 2012).

152. *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1326, 113 U.S.P.Q.2d 1112 (Fed. Cir. 2014); *Rite-Hite Corp.*, 56 F.3d at 1554; *Institut Pasteur v. Cambridge Biotech Corp.* (*In re Cambridge Biotech Corp.*), 186 F.3d 1356, 1377, 51 U.S.P.Q.2d 1321 (Fed. Cir. 1999).

153. *Rodime, P.L.C. v. Seagate Tech., Inc.*, 174 F.3d 1294, 1308, 50 U.S.P.Q.2d 1429 (Fed. Cir. 1999).

154. *Panduit Corp.*, 575 F.2d at 1159.

irrelevant for hypothetical negotiation analysis.¹⁵⁵ However, recognizing that the hypothetical negotiation framework encompasses both “fantasy and flexibility,” the Federal Circuit has approved consideration of events and facts occurring after the date of the hypothetical negotiation under what is known as the “Book of Wisdom.”¹⁵⁶ In a case where a reasonable royalty was measured by comparison to an extant license at a rate that changed with time, the Federal Circuit has held that the rate to apply is the one that would have been in effect during the period for which damages were available.¹⁵⁷ A reasonable royalty does not include a percentage of the value attributed to goodwill upon sale of the infringer’s business, where it was a one-product

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155. *Odetics, Inc. v. Storage Tech. Corp.*, 14 F. Supp. 2d 785, 47 U.S.P.Q.2d 1573 (E.D. Va. 1998) (court found that two licenses for the infringed patent that the plaintiff granted to third parties four and five years after the date of the first infringement were irrelevant for hypothetical negotiation analysis because of changing technology and financial landscape), *aff’d in part and rev’d in part on other grounds*, 185 F.3d 1259, 51 U.S.P.Q.2d 1225 (Fed. Cir. 1999); *but see VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1330, 113 U.S.P.Q.2d 1112 (Fed. Cir. 2014) (affirming district court’s admission of several licenses that post-dated the hypothetical negotiation by multiple years); *see also ActiveVideo Networks*, 694 F.3d at 1332 (upholding expert’s reliance on an agreement that post-dated the negotiation by two years while finding district court did not abuse discretion in prohibiting reliance on an agreement that post-dated the hypothetical negotiation by four years).
156. *Fromson v. W. Litho Plate & Supply Co.*, 853 F.2d 1568, 1575, 7 U.S.P.Q.2d 1606 (Fed. Cir. 1988) (holding that courts are “permit[ted] and often require[d] . . . to look at events and facts that occurred thereafter and that could not have been known to or predicted by the hypothesizing negotiators.”); *see also Sinclair Refining Co. v. Jenkins Petroleum Process Co.*, 289 U.S. 689, 698, 17 U.S.P.Q. 522 (1933) (“But a different situation is presented if years have gone by before the evidence is offered. Experience is then available to correct uncertain prophecy. Here is a book of wisdom that courts may not neglect. We find no rule of law that sets a clasp upon its pages, and forbids us to look within.”); *Lucent v. Gateway*, 580 F.3d 1301, 1333–34, 92 U.S.P.Q.2d 1555 (Fed. Cir. 2009) (relying on book of wisdom in noting that evidence about use of the infringing feature which post-dated the hypothetical negotiation could be relevant to reasonable royalty analysis); *Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd.*, 807 F.3d 1283, 1305, 116 U.S.P.Q.2d 1081 (Fed. Cir. 2015) (finding “after the fact” evidence that technology is used industry-wide relevant to reasonable royalty analysis); *but see Interactive Pictures Corp. v. Infinite Pictures, Inc.*, 274 F.3d 1371, 61 U.S.P.Q.2d 1152 (Fed. Cir. 2001) (reasonable royalty based on fraction of profits estimated before infringement began would not be disturbed even though the projected profits were not achieved).
157. *Harris Corp. v. Ericsson, Inc.*, 417 F.3d 1241, 75 U.S.P.Q.2d 1705 (Fed. Cir. 2005).

business, when there has been a separate reasonable royalty award based on the infringing product.¹⁵⁸

§ 9:5.2 Reasonable Royalty, Apportionment, Smallest Salable Patent-Practicing Unit, and the Entire Market Value Rule

The principle of apportionment requires that a reasonable royalty reflect the value of the patented feature and not the unpatented features. The rule of apportionment dates at least to the Supreme Court's holding in *Garretson v. Clark*, where the Supreme Court explained:

The patentee . . . must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented features, and such evidence must be reliable and tangible, and not conjectural or speculative; or he must show, by equally reliable and satisfactory evidence, that the profits and damages are to be calculated on the whole machine, for the reason that the entire value of the whole machine, as a marketable article, is properly and legally attributable to the patented feature.¹⁵⁹

The Federal Circuit elaborated on the apportionment requirement in *Ericsson, Inc. v. D-Link Systems, Inc.*:

where multi-component products are involved, the governing rule is that the ultimate combination of royalty base and royalty rate must reflect the value attributable to the infringing features of the product, and no more When the accused infringing products have both patented and unpatented features, measuring this value requires a determination of the value added by such features Logically, an economist could do this in various ways—by careful selection of the royalty base to reflect the value added by the patented feature, where that differentiation is possible; by adjustment of the royalty rate so as to discount the value of a product's non-patented features; or by a combination thereof.¹⁶⁰

Most of the recent case law relating to reasonable royalties and apportionment addresses determination of the royalty base. In that regard, the Federal Circuit has generally held that the general rule is

158. *Transclean Corp. v. Bridgewood Servs., Inc.*, 290 F.3d 1364, 62 U.S.P.Q.2d 1865 (Fed. Cir. 2002).

159. *Garretson v. Clark*, 111 U.S. 120, 121 (1884) (quoting the court below).

160. *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226, 113 U.S.P.Q.2d 1001 (Fed. Cir. 2014).

that to achieve apportionment, the royalty base must begin with the smallest salable patent-practicing unit (SSPPU). In *LaserDynamics, Inc. v. Quanta Computer, Inc.*, the Federal Circuit articulated this principle:

Where small elements of multi-component products are accused of infringement, calculating a royalty on the entire product carries a considerable risk that the patentee will be improperly compensated for non-infringing components of that product. Thus, it is generally required that royalties be based not on the entire product, but instead on the “smallest salable patent-practicing unit.”¹⁶¹

There, the court found it was impermissible to expand the royalty base beyond the SSPPU—an optical discriminating device used for transferring data from an optical disc to a laptop computer—and rejected the patentee’s attempt to use the computer itself as the royalty base where the entire market value rule was not met.

The entire market value rule is a narrow exception to the general rule of apportionment.¹⁶² Under the entire market value rule, a royalty base broader than the SSPPU may be used only if the patented feature “create[s] the basis for customer demand or substantially create[s] the value of the component parts.”¹⁶³ Merely showing that the patented feature is valuable, important, or even essential to the accused product is insufficient.¹⁶⁴ The patentee must prove that any other valuable features of the product do not influence purchasing decisions.¹⁶⁵ The Federal Circuit has found the entire market value rule satisfied in only a small number of reasonable royalty cases.¹⁶⁶

161. *LaserDynamics, Inc. v. Quanta Comput., Inc.*, 694 F.3d 51, 67, 104 U.S.P.Q.2d 1573 (Fed. Cir. 2012).

162. *Id.*

163. *Uniloc USA Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1318, 98 U.S.P.Q.2d 1203 (Fed. Cir. 2011); *see also LaserDynamics*, 694 F.3d at 67 (“If it can be shown that the patented feature drives the demand for an entire multi-component product, a patentee may be awarded damages as a percentage of revenues or profits attributable to the entire product.”); *Bose Corp. v. JBL, Inc.*, 274 F.3d 1354, 1361, 61 U.S.P.Q.2d 1216 (Fed. Cir. 2001); *TWM Mfg.*, 789 F.2d at 901 (“The entire market value rule allows for the recovery of damages based on the value of an entire apparatus containing several features, when the feature patented constitutes the basis for customer demand.”), *cert. denied*, 479 U.S. 852 (1986).

164. *Power Integrations, Inc. v. Fairchild Semiconductor*, 894 F.3d 1258, 1271 (Fed. Cir. 2018) (citing *LaserDynamics*, 694 F.3d at 68).

165. *Id.* at 1273 (remanding for third damages trial where patentee failed to present sufficient evidence to invoke entire market value rule).

166. *See, e.g., Bose Corp.*, 274 F.3d 1354 (affirming royalty award based on entire value of loudspeakers, not just the patented part); *TWM Mfg. Co.*,

Even when a patentee relies on the SSPPU, the royalty base may be too large in certain circumstances. In 2014, the Federal Circuit held in *VirnetX, Inc. v. Cisco Systems, Inc.*, that further apportionment beyond the SSPPU is required when the SSPPU itself contains both patented and unpatented components.¹⁶⁷ Specifically, the Federal Circuit explained that:

[w]here the smallest salable unit is, in fact, a multi-component product containing several non-infringing features with no relation to the patented feature . . . the patentee must do more to estimate what portion of the value of that product is attributable to the patented technology.¹⁶⁸

In that case, dealing with Apple's iPhone and the VPN On Demand and FaceTime features, the Federal Circuit held that it was error to "rel[y] on the entire value of [Apple] iOS devices as the 'smallest saleable units,' without attempting to apportion the value attributable to the VPN On Demand and FaceTime features."¹⁶⁹ In other words, it was improper to use the entire revenue from sales of an iPhone as the royalty base (even though it was the SSPPU) without demonstrating that the two accused features drove customer demand for the phone.

The Federal Circuit addressed the question of apportionment when the SSPPU contains both patented and unpatented components or features again in *Finjan, Inc. v. Blue Coat Systems, Inc.*¹⁷⁰ Finjan argued that it satisfied the apportionment requirement by using the "smallest identifiable technical component," that is, the dynamic real-time rating engine (DRTR), as the royalty base, instead of the infringing WebPulse product.¹⁷¹ The Federal Circuit held that because the DRTR also included noninfringing features, it was not a proxy for the incremental value of the patented technology and further apportionment was required.¹⁷² "As we noted in *VirnetX*, if the smallest salable unit—or smallest identifiable technical component—contains non-infringing features, additional apportionment is still required."¹⁷³ The Federal Circuit also found that the expert's proposed royalty rate of

789 F.2d 895 (affirming royalty award for unpatented wheels and axles sold with patented vehicle suspension system); *Tec Air, Inc. v. Denso Mfg. Mich., Inc.*, 192 F.3d 1353, 1362, 52 U.S.P.Q.2d 1294 (Fed. Cir. 1999); *Fonar Corp. v. Gen. Elec. Co.*, 107 F.3d 1543, 1552–53 (Fed. Cir. 1997).

167. *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1326, 113 U.S.P.Q.2d 1112 (Fed. Cir. 2014).

168. *Id.*

169. *Id.* at 1328.

170. *Finjan*, 879 F.3d. at 1310–12.

171. *Id.* at 1310.

172. *Id.* at 1310–11.

173. *Id.* at 1311.

\$8 per user lacked sufficient support.¹⁷⁴ Thus, it remanded for a determination of whether Finjan waived its right to establish reasonable royalty damages under an alternate theory.¹⁷⁵ Addressing a different set of patents, the Federal Circuit rejected the argument that there was insufficient evidence to support an equal apportionment among twenty-four identified functionalities and found that Finjan's expert properly apportioned the royalty base between the infringing and noninfringing functionality.¹⁷⁶

The Federal Circuit discussed the interrelated concepts of apportionment and the entire market value rule in the pharmaceutical context in *AstraZeneca AB v. Apotex Corp.*¹⁷⁷ There, the court held that although the entire market value rule could apply in the pharmaceutical context, it was inapplicable to the infringer's pharmaceutical product because the asserted patents "cover the infringing product as a whole, not a single component of a multi-component product."¹⁷⁸ Specifically, AstraZeneca's patents claimed three key elements—the drug core, the enteric coating, and the subcoating—the combination of which constituted the complete accused product. Thus, the court found that because "[t]here is no unpatented or non-infringing feature in the product," the entire market value rule does not apply.¹⁷⁹ Nonetheless, the patentee must still account for the relative contribution of the patentee's invention in determining the royalty rate:

While the entire market value rule does not apply to this case, the damages determination nonetheless requires a related inquiry. When a patent covers the infringing product as a whole, and the claims recite both conventional elements and unconventional elements, the court must determine how to account for the relative value of the patentee's invention in comparison to the value of the conventional elements recited in the claim, standing alone.¹⁸⁰

In some cases, the Federal Circuit has rejected the notion that all royalty models must begin with the SSPPU.¹⁸¹ As the court explained in *Commonwealth Scientific & Industrial Research Organisation v. Cisco Systems, Inc.*, the SSPPU principle applies when royalties are

174. *Id.* at 1311–12.

175. *Id.* at 1312.

176. *Id.* at 1312–1313.

177. *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1338 (Fed. Cir. 2015).

178. *Id.*

179. *Id.*

180. *Id.* (citing *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1233 (Fed. Cir. 2014)).

181. *Commonwealth Sci. & Indus. Research Organisation*, 809 F.3d at 1302–03.

calculated by apportioning the royalty base. But the principle does not apply when another method of apportionment, such as basing the royalty on the parties' negotiations, is used.¹⁸² According to the court, any rule that would require all damages models to begin with the SSPPU would necessitate exclusion of comparable licenses that may be the most relevant method of estimating value—merely because the license uses a percentage of total revenues instead of the SSPPU.¹⁸³ Thus, the court held that otherwise comparable licenses are not inadmissible merely because they use a percentage of total revenues instead of the SSPPU and that the district court did not violate apportionment principles by using the parties' negotiations with respect to the entire product to determine the rate.¹⁸⁴

More recently, the Federal Circuit held in *Exmark Manufacturing Co. v. Briggs & Stratton Power Products Group, LLC* that apportionment can be done through either the royalty base or the royalty rate, or a combination thereof.¹⁸⁵ In a case involving lawn mowers having improved flow control baffles, the Federal Circuit found that use of the whole lawn mower as the royalty base—instead of the baffle by itself—did not violate the apportionment requirement because apportionment can also be done through the royalty rate.¹⁸⁶ “So long as Exmark adequately and reliably apportions between the improved and conventional features of the accused mower, using the accused mower as a royalty base and apportioning through the royalty rate is an acceptable methodology.”¹⁸⁷ Using the lawn mower as the royalty base, instead of the baffle, is “particularly appropriate” because the asserted claim is directed to the whole lawn mower, not just the baffle.¹⁸⁸ Thus, the accused product has no unpatented or non-infringing features, only conventional and unconventional elements.¹⁸⁹ Use of the lawn mower as the royalty base is also “consistent with the realities of a hypothetical negotiation and accurately reflects the real-world bargaining that occurs, particularly in licensing.”¹⁹⁰ While agreeing that a proper *Georgia-Pacific* analysis is one way to apportion the royalty rate, the Federal Circuit ultimately found that Exmark's expert failed to tie the

182. *Id.*

183. *Id.* at 1303–04.

184. *Id.*

185. *Exmark Mfg.*, 879 F.3d at 1348 (“We have held that apportionment can be addressed in a variety of ways, including ‘by careful selection of the royalty base to reflect the value added by the patented feature [or] ... by adjustment of the royalty rate so as to discount the value of a product’s non-patented features; or a combination thereof.’”) (quoting *Ericsson*, 773 F.3d at 1226).

186. *Exmark Mfg.*, 879 F.3d at 1347–49.

187. *Id.* at 1348.

188. *Id.*

189. *Id.*

190. *Id.* at 1349.

relevant factors to the proposed royalty rate or to explain how they factor into the proposed rate, and remanded for a new damages trial.¹⁹¹

Most recently, the Federal Circuit addressed the issue of apportionment in *Power Integrations, Inc. v. Fairchild Semiconductor International, Inc.*¹⁹² In this case, without mentioning *Exmark*, the Federal Circuit reemphasized that the royalty base should not be larger than the smallest salable unit and that where the SSPPU is itself a multi-component product, the royalty base must be apportioned even further. The Federal Circuit also addressed the EMVR stating:

As *LaserDynamics*, *Versata*, and *VirnetX* held, the entire market value rule is appropriate only when the patented feature is the sole driver of customer demand or substantially creates the value of the component parts. The burden of proof in this respect is on the patent holder. The question is whether the accused product, compared to other products in the same field, has features that would cause consumers to purchase the products beyond the patented feature, i.e., valuable features. Where the accused infringer presents evidence that its accused product has other valuable features beyond the patented feature, the patent holder must establish that these features are not relevant to consumer choice. A patentee may do this by showing that that patented feature ‘alone motivates customers to purchase [the infringing product]’ in the first place. But when the product contains multiple valuable features, it is not enough to merely show that the patented feature is viewed as essential, that a product would not be commercially viable without the patented feature, or that consumers would not purchase the product without the patented feature. When the product contains other valuable features, the patentee must prove that those other features did not influence purchasing decisions.¹⁹³

Additional considerations regarding apportionment apply in the context of standard-essential patents. As the Federal Circuit held in *Ericsson*, standard-essential patents require two apportionment steps. First, the patented feature must be apportioned from all of the unpatented features in the standard.¹⁹⁴ Second, the patentee must apportion between the value of the patented feature and any value added by the standard’s adoption of the patent.¹⁹⁵ A new determination of

191. *Id.* at 1349–51.

192. *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, [2016-2691, 2017-1875] (Fed. Cir. July 3, 2018).

193. *Id.* at 22–23.

194. *Ericsson*, 773 F.3d at 1232–33.

195. *Id.*; see also *Chrimar Holding Co. v. ALE USA Inc.*, 732 F. App’x 876, 2018 WL 2120618, at *9 (Fed. Cir. 2018) (expert sufficiently apportioned by accounting for accused products’ non-patented functionality outside of the standard, the non-patented features within the standard, and the value of standardization).

a reasonable royalty is required where the royalty for a standard-essential patent fails to apportion between the value of the patented invention and its incorporation into the standard.¹⁹⁶

§ 9:5.3 Georgia-Pacific Factors

A lengthy, but nonexhaustive, list of factors bearing on the determination of a reasonable royalty rate has become known as the *Georgia-Pacific* factors and has gained noticeable acceptance over the years, including at the Federal Circuit.¹⁹⁷ The trial judge in *Georgia-Pacific* identified the following list of factors:

1. The royalties received by the patentee for the licensing of the patent-in-suit, proving or tending to prove an established royalty.
2. The rates paid by the licensee for the use of other patents comparable to the patent-in-suit.
3. The nature and scope of the license, as exclusive or non-exclusive; or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.
4. The licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.
5. The commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter.
6. The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales.¹⁹⁸
7. The duration of the patent and the term of the license.

196. *Commonwealth Sci. & Indus. Research*, 809 F.3d at 1304–06.

197. *Ga.-Pac. Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120, 166 U.S.P.Q. 235 (S.D.N.Y. 1970), *modified and aff'd*, 446 F.2d 295, 170 U.S.P.Q. 369 (2d Cir.), *cert. denied*, 404 U.S. 870, 92 S. Ct. 105 (1971).

198. *Interactive Pictures Corp.*, 274 F.3d 1371 (consideration by jury of value of convoyed products in estimating both royalty base and royalty rate was not such error as to require reversal of jury award).

8. The established profitability of the product made under the patent; its commercial success; and its current popularity.
9. The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.
10. The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.
11. The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.
12. The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.
13. The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.
14. The opinion testimony of qualified experts.
15. The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.

Not all factors relevant to a given case are included in the *Georgia-Pacific* factors. For example, the amount paid to buy a company that originated the patents-in-suit can be a relevant factor to the reasonableness of a hypothetical royalty.¹⁹⁹ Nor do any of the *Georgia-Pacific* factors set a cap on the reasonable royalty that a court can award. For example, the law does not require that the reasonable royalty be capped at the cost of switching to an alternative noninfringing

199. *Integra Lifesciences I Ltd. v. Merck KGaA*, 331 F.3d 860; 66 U.S.P.Q.2d 1865 (Fed. Cir. 2003).

technology or by the royalty rate at which the patent holder licenses its wholly owned subsidiaries under its patent.²⁰⁰

§ 9:5.4 Comparable Licenses

A common part of a reasonable royalty analysis includes consideration of any comparable licenses for the patent-in-suit or other comparable patents. The Federal Circuit has stressed the importance of both the technical and economic comparability of prior licenses.²⁰¹ Although identical circumstances and technology are not required, licenses that are “radically different” or have no association to the hypothetical negotiation are insufficient to support a reasonable royalty.²⁰² Conclusory statements of comparability or “alleging a loose or vague comparability between different technologies or licenses” is insufficient.²⁰³ Assuming establishment of some threshold level of comparability, the “degree of comparability” of a license agreement is a “factual issue[] best addressed by cross examination and not by exclusion.”²⁰⁴ Moreover, the “use of past patent licenses . . . must account for differences in the technologies and economic circumstances of the contracting parties.”²⁰⁵

Settlement agreements or licenses entered under threat of litigation can present additional challenges to comparability. The Supreme

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200. *Mars, Inc. v. Coin Acceptors, Inc.*, 527 F.3d 1359, 1373–74, 87 U.S.P.Q.2d 1076 (Fed. Cir. 2008), *modified on other grounds*, 557 F.3d 1377, 90 U.S.P.Q.2d 1061 (Fed. Cir. 2009).
201. *See, e.g., Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1325, 92 U.S.P.Q.2d 1555 (Fed. Cir. 2009) (discussing whether licenses are “sufficiently comparable to the hypothetical license at issue in suit”); *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1211, 97 U.S.P.Q.2d 1161 (Fed. Cir. 2010) (royalty analysis must “account for differences in the technologies and economic circumstances of the contracting parties”).
202. *Lucent Techs.*, 580 F.3d at 1327–28 (rejecting reliance on licenses “radically different from the hypothetical agreement”); *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 870–72, 93 U.S.P.Q.2d 1553 (Fed. Cir. 2010) (rejecting expert’s use of licenses with “no relationship to the claimed invention to drive the royalty rate up”).
203. *LaserDynamics, Inc. v. Quanta Comput., Inc.*, 694 F.3d 51, 79, 104 U.S.P.Q.2d 1573 (Fed. Cir. 2012); *see also Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1321, 125 U.S.P.Q.2d 1282 (Fed. Cir. 2018) (finding insufficient support for reasonable royalty where plaintiff based royalty rate on only a “surface similarity” to royalty from prior verdict for a different patent).
204. *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1333 (Fed. Cir. 2012); *see also VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1331, 113 U.S.P.Q.2d 1112 (Fed. Cir. 2014).
205. *Finjan, Inc.*, 626 F.3d at 1211; *see also Ericsson*, 773 F.3d at 1227 (expert’s testimony relying on licenses must account for distinguishing facts such as inclusion of other patents or technology, cross-licensing terms, and foreign intellectual property rights).

Court questioned the use of settlement agreements more than a century ago in *Rude v. Westcott*, stating that “a payment of any sum in settlement of a claim for an alleged infringement cannot be taken as a standard to measure the value of the improvements patented,” because it may be motivated by “[t]he avoidance of the risk and expense of litigation.”²⁰⁶ Although the holding in *Rude* focused on use of a litigation settlement to prove an established royalty, courts have since reiterated the same concerns in the context of a reasonable royalty. In *LaserDynamics, Inc. v. Quanta Computer, Inc.*, the Federal Circuit explained that “[t]he propriety of using prior settlement agreements to prove the amount of a reasonable royalty is questionable” because litigation can skew the results of the negotiation and therefore affect comparability.²⁰⁷ Some district courts have adopted this reasoning, finding that settlement agreements were not economically comparable to the hypothetical negotiation where the damages expert failed to account for the lack of a willing licensor.²⁰⁸ Nonetheless, the Federal Circuit found in *ResQNet.com, Inc. v. Lansa, Inc.*, that under the facts in that case, a settlement agreement was the “most reliable license in this record.”²⁰⁹ Other cases have likewise found that settlement agreements can be relevant to the determination of a reasonable royalty.²¹⁰

The Federal Circuit expounded on the concerns regarding use of settlements in *Prism Technologies LLC v. Sprint Spectrum L.P.*²¹¹ Addressing the admissibility of a settlement agreement over the infringer’s challenge under Rule 403 of the Federal Rules of Evidence,

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206. *Rude v. Westcott*, 130 U.S. 152 (1889) (rejecting the use of a litigation-induced license as a measure of an established royalty).
 207. *LaserDynamics, Inc. v. Quanta Comput., Inc.*, 694 F.3d 51, 77, 104 U.S.P.Q.2d 1573 (Fed. Cir. 2012).
 208. *See, e.g.*, *M2M Sols. LLC v. Enfora*, No. 12-32-RGA, 167 F. Supp. 3d 665, 676–79 (D. Del. 2016); *Sprint Commc’ns Co. v. Comcast IP Holdings, LLC*, No. CV 12-1013-RGA, 2015 WL 456154, at *1–2 (D. Del. Jan. 30, 2015).
 209. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 680, 872, 93 U.S.P.Q.2d 1553 (Fed. Cir. 2010) (explaining that “litigation itself can skew the results of the hypothetical negotiation,” but finding that a settlement agreement was “most reliable license in this record”).
 210. *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1336–37, 114 U.S.P.Q.2d 1416 (Fed. Cir. 2015); *In re MSTG, Inc.*, 675 F.3d 1337, 1348, 102 U.S.P.Q.2d 1321 (Fed. Cir. 2012) (“Our cases appropriately recognize that settlement agreements can be pertinent to the issue of reasonable royalties.”); *Rembrandt Wireless Techs, LP v. Samsung Elecs. Co.*, 853 F.3d 1370, 1381, 122 U.S.P.Q.2d 1301 (Fed. Cir. 2107) (no abuse of discretion in allowing patentee’s expert to consider settlement agreement covering patents-in-suit).
 211. *Prism Techs. LLC v. Sprint Spectrum L.P.*, 849 F.3d 1360, 1368–73, 121 U.S.P.Q.2d 1817 (Fed. Cir. 2017), *cert. denied*, 138 S. Ct. 429 (2017).

the Federal Circuit explained that the mere fact that an agreement is in settlement of litigation does not automatically make it inadmissible under Rule 403.²¹² Instead, the court invoked a balancing test under Rule 403 whereby the court should consider the particulars of the settlement and of the case in which the settlement is offered into evidence, including the similarity of the patent(s) and accused technology, the stage of the litigation, the settlement timing versus the date of the hypothetical negotiation, the risk of enhanced damages, and the extent to which “the cost of the predicted judgment,” “its probability,” and “costs of further litigation” influenced the settlement value.²¹³ Thus, the district court did not err in admitting a prior settlement agreement involving the patents-in-suit. The court declined to address two additional arguments raised by Sprint against the admissibility of the settlement agreement in question—(1) that the Supreme Court’s holding in *Rude* created a categorical bar against admission of settlement agreements to support a reasonable royalty and (2) that Rule 408 of the Federal Rules of Evidence also created a categorical bar against admission of settlement agreements. Instead of ruling on either issue, the court held that Sprint failed to preserve these arguments in the district court, and that these arguments were inconsistent with Sprint’s position as to other smaller value settlement agreements presented at trial.²¹⁴

Regarding royalties received for the licensing of the patent, it has been conventional for the patent owner to produce copies of licenses signed with third-party licensees under the patent. Patentees have frequently resisted producing documents, or providing testimony, concerning negotiations that preceded these licenses, based on an assertion of privilege under Rule 408 of the Federal Rules of Evidence. However, the Federal Circuit ruled in 2012 that settlement negotiations with third-party licensees under the patent related to reasonable royalties and damages calculations are not protected against discovery by a settlement negotiation privilege.²¹⁵ Nonetheless, courts may deny discovery of settlement negotiations if the movant fails to show such

212. *Id.* at 1369–70.

213. *Id.* (explaining that a settlement may be “too low” relative to the value of the patented technology to the extent it is lowered by the patentee’s discounting for the probability of losing on infringement or validity, or the desire to avoid further litigation costs, or “too high” to the extent it covers technology that is not the same as or not comparable to the patented technology, includes a risk of enhanced damages, or reflects the cost of future litigation).

214. *Id.* at 1371–74.

215. *In re MSTG, Inc.*, 675 F.3d at 1348.

information is relevant to the determination of a reasonable royalty or imposes an unreasonable burden.²¹⁶

An additional issue of comparability arises when using running royalty agreements to determine lump-sum damages or vice versa. In *Lucent Technologies, Inc. v. Gateway, Inc.*, the Federal Circuit explained that “[f]or a jury to use a running-royalty agreement as a basis to award lump-sum damages . . . some basis for comparison must exist in the evidence presented to the jury.”²¹⁷ The court found that the patentee failed to present sufficient testimony for the jury to recalculate in a meaningful way the value of the running royalty agreements to arrive at the lump-sum damages award and vacated the damages award. Similarly, in *Whitserve, LLC v. Computer Packages, Inc.*, the Federal Circuit vacated a jury’s damages award where the patentee failed to present evidence to explain how two lump-sum payments could be converted to a running royalty rate.²¹⁸

License agreements that contain a royalty rate expressed as a percentage of total revenues can also present additional issues relating to comparability. In *Commonwealth Scientific & Industrial Research Organisation v. Cisco Systems, Inc.*, the Federal Circuit rejected the notion that an otherwise comparable license agreement requires exclusion merely because it contains a percentage royalty based on the entire product and not the smallest salable patent-practicing unit.²¹⁹ Rather, the court held that a license based on the total product revenue may in some cases be the most effective method of estimating

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216. See *ABT Sys., LLC v. Emerson Elec. Co.*, No. 4:11CV00374 AGF, 2012 WL 6594996 (E.D. Mo. Dec. 18, 2012) (denying discovery of settlement negotiation documents except those related to the prior art where defendant failed to show their relevance to damages); *Avocent Redmond Corp. v. Rose Elecs.*, No. C06-1711RSL, 2012 WL 4903272 (W.D. Wash. May 29, 2012) (denying discovery of settlement negotiations where there was no showing information sought would be admissible); cf. *Memory Integrity, LLC v. Intel Corp.*, No. 3:15-CV-00262-SI, 2015 WL 4601177 (D. Or. July 29, 2015) (allowing discovery of settlement negotiations because such information may be relevant to damages); *Implicit Networks, Inc. v. Juniper Networks, Inc.*, 2012 U.S. Dist. LEXIS 183715 (N.D. Cal. June 5, 2012) (allowing discovery of settlement negotiations where patentee claimed the agreements were “discounted” based on business decisions).
217. *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1330, 92 U.S.P.Q.2d 1555 (Fed. Cir. 2009).
218. *Whitserve, LLC v. Comput. Packages, Inc.*, 694 F.3d 10, 30, 104 U.S.P.Q.2d 1024 (Fed. Cir. 2012) (explaining that “lump sum payments . . . should not support running royalty rates without testimony explaining how they apply to the facts of the case”).
219. *Commonwealth Sci. & Indus. Research Organisation v. Cisco Sys., Inc.*, 809 F.3d 1295, 1303–04, 117 U.S.P.Q.2d 1527 (Fed. Cir. 2015).

a patent's value, even if it is not based on the smallest salable patent-practicing unit.²²⁰

§ 9:5.5 Reasonable Royalty Based on a Fraction of the Patentee's Lost Profits

Another approach to determining the reasonable royalty focuses on the unit profits that the patent owner would forego by licensing. Under this approach, a reasonable royalty of 50% of the patent owner's lost profits was found to be an appropriate measure and affirmed by the Federal Circuit in *Rite-Hite*.²²¹ The Federal Circuit provided the following analysis:

The district court here conducted the hypothetical negotiation analysis. It determined that Rite-Hite would have been willing to grant a competitor a license to use the '847 invention only if it received a royalty of no less than one-half of the per unit profits that it was foregoing. In so determining, the court considered that the '847 patent was a "pioneer" patent with manifest commercial success; that Rite-Hite had consistently followed a policy of exploiting its own patents, rather than licensing to competitors; and that Rite-Hite would have had to forego a large profit by granting a license to Kelley because Kelley was a strong competitor and Rite-Hite anticipated being able to sell a large number of restraints and related products. *See also Deere & Co. v. International Harvester Co.*, 710 F.2d 1551, 1559, 218 U.S.P.Q. 481, 487 (Fed. Cir. 1983) (court may consider impact of anticipated collateral sales); *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 166 U.S.P.Q. 235, (S.D.N.Y. 1970) (wide range of factors relevant to hypothetical negotiation), *modified and aff'd*, 446 F.2d 295, 170 U.S.P.Q. 369 (2d Cir.), *cert. denied*, 404 U.S. 870, 30 L. Ed. 2d 114, 92 S. Ct. 105 (1971). It was thus not unreasonable for the district court to find that an unwilling patentee would only license for one-half its expected lost profits and that such an amount was a reasonable royalty. The fact that the award was not based on the infringer's profits did not make it an unreasonable award. *See State Indus.*, 883 F.2d at 1580, 12 U.S.P.Q.2d at 1031. "The determination of a reasonable royalty . . . is based not on the infringer's profit margin, . . . [t]here is no rule that a royalty be no higher than the infringer's net profit margin."; *Stickle v. Heublein, Inc.*, 716 F.2d 1550, 1563, 219 U.S.P.Q. 377, 387 (Fed. Cir. 1983) (royalty need not be less than price of infringing unit). Furthermore, the fact that the award was based on and was a significant portion of the patentee's profits also

220. *Id.*

221. *Rite-Hite Corp.*, 56 F.3d at 1554–55.

does not make the award unreasonable. The language of the statute requires “damages adequate to compensate,” which does not include a royalty that a patentee who does not wish to license its patent would find unreasonable. *See Del Mar*, 836 F.2d at 1328, 5 U.S.P.Q.2d at 1261 (“[The] imposition on a patent owner who would not have licensed his invention for [a certain] royalty is a form of compulsory license, against the will and interest of the person wronged, in favor of the wrongdoer.”). Moreover, what an infringer would prefer to pay is not the test for damages. *See TWM*, 789 F.2d at 900, 229 U.S.P.Q. at 528 (that the parties might have agreed to a lesser royalty is of little relevance, for to look only at that question would be to pretend that the infringement never happened; it would also make an election to infringe a handy means for competitors to impose a compulsory license policy upon every patent owner).

We conclude that the district court made no legal error and was not clearly erroneous in determining the reasonable royalty rate. Accordingly, we affirm the trial court’s calculation of a reasonable royalty rate.

This reasoning has since been followed at the trial court level.²²²

The Federal Circuit adopted similar reasoning in *Asetek Danmark A/S v. CMI USA Inc.* There, the court held that the profits a patentee would lose as a result of granting a license may be taken into account in calculating a reasonable royalty, noting that this can be a logical approach for a patent owner when negotiating a license.²²³ This did not, as the infringer argued, circumvent the requirement to show but-for causation for lost profits, because, unlike a lost profits analysis, a hypothetical negotiation factors in the infringer’s willingness to pay.²²⁴

§ 9:5.6 Reasonable Royalty Based on a Fraction of Infringer’s Profit

The net profit attributable to the infringer’s use of the patented invention can be an appropriate starting point for determination of the

222. C.R. Bard, Inc. v. Medtronic, Inc., No. 96-589-SLR, 1999 WL 458305, at *11 (D. Del. June 15, 1999), *aff’d in part, vacated in part on other grounds*, 2000 WL 868581 (Fed. Cir. June 29, 2000) (district court adopted *Rite-Hite* measure of reasonable royalty based on half of patentee’s expected lost profits; when defendant argued that jury’s royalty award was excessive and contrary to the evidence, the court cited *Rite-Hite* for the proposition that, because the jury’s royalty award was about half of plaintiff’s lost profits, it was neither excessive nor contrary to the evidence).

223. *Asetek Danmark A/S v. CMI USA Inc.*, 852 F.3d 1352, 1362–63, 122 U.S.P.Q.2d 1182 (Fed. Cir. 2017).

224. *Id.* at 1363.

reasonable royalty rate. For example, the infringer's profits for the accused products compared to standard industry profits or profits for nonaccused products may be used to determine a reasonable royalty under what is commonly referred to as the "analytical approach."²²⁵ In another case, the Federal Circuit affirmed an expert's methodology comparing prices of two products that the infringer purchased from its supplier—one with the infringing functionality and the other without—which he used to determine the incremental value associated with the infringing functionality.²²⁶

Another approach may be to use the infringer's "at-risk" profits that would have been lost if the infringer had removed the accused feature.²²⁷ Even a royalty which awards the majority of an infringer's projected per-unit net profit to the patentee can be proper if the infringer would have been willing to pay such a price to enter the market during a hypothetical negotiation.²²⁸

Yet another approach may be to use the value of a comparable technology as a "benchmark" of the value of the patented technology as a starting point for an apportionment of the defendant's profits.²²⁹ Once the profits attributable to the patented invention have been determined, a further apportionment may be used to determine the reasonable royalty rate; but the specific apportionment applied must be tied to the facts of the case and not based on a "rule of thumb."²³⁰

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225. *See, e.g.*, *TWM Mfg. Co. v. Dura Corp.*, 789 F.2d 895, 899, 229 U.S.P.Q. 525 (Fed. Cir. 1986) (upholding an analytical approach for determining a reasonable royalty based on "subtract[ing] the infringer's usual or acceptable net profit from its anticipated net profit realized from sales of infringing devices"); *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324, 92 U.S.P.Q.2d 1555 (Fed. Cir. 2009) (further discussing "analytical method").
226. *Rembrandt Wireless Techs., LP v. Samsung Elecs. Co.*, 853 F.3d 1370, 1380–81, 122 U.S.P.Q.2d 1301 (Fed. Cir. 2017).
227. *See, e.g.*, *Sentius Int'l, LLC v. Microsoft Corp.*, No. 5:13-CV-00825-PSG, 2015 WL 451950, at *4–5, *9 (N.D. Cal. Jan. 27, 2015) (allowing damages expert to testify regarding "income approach" theory which based reasonable royalty on infringer's "at-risk" profits that it would have lost if it had removed the infringing feature).
228. *Exergen Corp. v. Kaz USA, Inc.*, 725 F. App'x 959 (Fed. Cir. 2018).
229. *Arctic Cat*, 876 F.3d at 1369–70 (approving use of value of other technology later sold by infringer as "value benchmark" for infringing technology where technical expert opined that benchmark was of comparable technological value).
230. *See Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1320, 98 U.S.P.Q.2d 1203 (Fed. Cir. 2011) (rejecting use of 25% "rule of thumb" in apportioning profits); *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1331–33 (Fed. Cir. 2014) (rejecting application of the Nash Bargaining Solution in determining profit-split where expert failed to show the premises of the theorem were met).

The Federal Circuit has affirmed an expert's apportionment methodology that utilized an infringer's production costs and survey data regarding use of the infringing feature to determine the incremental profit attributable to the infringement.²³¹ The expert then determined that, based on the lack of noninfringing alternatives, and the parties' equal bargaining power, the parties would have agreed to split the incremental profit evenly to derive the per-unit royalty rate.²³²

§ 9:5.7 Reasonable Royalty Based on the Differential Cost of Using an Alternative Noninfringing Technology

A reasonable royalty can sometimes be based on the savings effected by the invention over the nearest available noninfringing design that the infringer could have adopted. The theory is that, if there is an available alternative, an infringer would not pay, and a patentee could not expect to receive, a higher royalty than the savings, or profit, that it could obtain by use of the patented technology as compared to the noninfringing alternative. Determining a reasonable royalty based on predicted savings by the patented technology is an established principle.²³³

§ 9:5.8 Reasonable Royalty Based on a Flat Fee or Milestone Payments

For infringement involving only testing of the patented product or process, there are no sales to support a reasonable royalty. In such precommercialization cases, a reasonable royalty may be based on a flat fee or milestone payments.²³⁴

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231. Summit 6, LLC v. Samsung Elecs. Co., 802 F.3d 1283, 1296–97, 116 U.S.P.Q.2d 1637 (Fed. Cir. 2015).
232. *Id.* at 1297 (noting that Samsung did not challenge on appeal the expert's use of the Nash Bargaining Solution in determining the 50-50 profit-split).
233. Prism Techs. LLC v. Sprint Spectrum L.P., 849 F.3d 1360, 1375–77, 113 U.S.P.Q.2d 1347 (Fed. Cir.), *cert. denied*, 138 S. Ct. 429 (2017) (“A price for a hypothetical license may appropriately be based on consideration of the ‘costs and availability of non-infringing alternatives’ and the potential infringer’s ‘cost savings.’”) (quoting *Aqua Shield v. Inter Pool Cover Team*, 774 F.3d 766, 771–72, 113 U.S.P.Q.2d 1347 (Fed. Cir. 2014)).
234. *Embrex, Inc. v. Serv. Eng’g Corp.*, 216 F.3d 1343, 1350, 55 U.S.P.Q.2d 1161, 1165 (Fed. Cir. 2000) (finding that the “parties may choose other methods to compute the amount that a licensee may pay for the right to use a patented product or process, such as flat fees or milestone payments in the case of pre-commercialization licenses”).

§ 9:5.9 Post-Verdict Royalties

In 2006, in *eBay v. MercExchange LLC*, the Supreme Court unanimously determined that an injunction should not be automatically issued based on a finding of patent infringement.²³⁵ The question then arose concerning the future damages that a winning patentee, who had been denied an injunction, should be awarded for continuing infringement absent the parties' voluntary agreement to an amount.²³⁶

In *Paice LLC v. Toyota Motor Corp.*, Paice, a domestic engineering research company, owned three U.S. patents related to hybrid automobiles. It successfully sued Toyota for patent infringement but was denied a permanent injunction by the trial court on equitable grounds. The jury's damages award amounted to approximately \$25 per accused vehicle.²³⁷ The trial court sua sponte entered an "ongoing royalty order" imposing a royalty payment of \$25 per accused vehicle sold during the remaining patent term, payable quarterly.²³⁸

On appeal of the ongoing royalty ruling, the Federal Circuit remanded because the trial court had provided no reasoning to support the selection of \$25 per vehicle as the royalty rate that would enable the appellate court to determine whether the judge had abused his discretion. On remand, the rate could be reevaluated in the light of additional evidence that could be received.²³⁹ The Federal Circuit suggested that before any imposition of a rate, the trial court might first wish to allow the parties to negotiate a license regarding future use of the patented invention.²⁴⁰ The Federal Circuit also rejected the patentee's contention that, under the Seventh Amendment, it was entitled to a jury trial of the amount of future payments.²⁴¹

In a concurring opinion, Judge Rader pointed out that an imposed "ongoing royalty" is a compulsory license in substance. In his view, the Federal Circuit should have directed, not merely suggested, that the trial court first give the parties an opportunity to negotiate the rate if they could. He also suggested that "if the parties cannot reach agreement, the court would retain jurisdiction to impose a reasonable royalty to remedy the past and ongoing infringement."²⁴²

In 2008, the Federal Circuit considered the setting of a royalty rate in a case where a permanent injunction had been entered following a

235. *eBay v. MercExchange LLC*, 547 U.S. 388, 78 U.S.P.Q.2d 1577 (2006).

236. *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 85 U.S.P.Q.2d 1001 (Fed. Cir. 2007).

237. *Id.* at 1303.

238. *Id.* at 1313–14.

239. *Id.* at 1315.

240. *Id.*

241. *Id.* at 1316.

242. *Id.* at 1317. In a 2010 case, the Federal Circuit confirmed the power of a trial court to set the rate of post-judgment royalty that an adjudged

judgment for the patentee at trial, but where the injunction had been stayed pending an appeal that resulted in an affirmance of the judgment. In *Amado v. Microsoft Corp.*,²⁴³ the court ruled that the royalty rate to be awarded for the period of the stay should be higher than the rate that the jury had awarded for prejudgment damages, because the relative bargaining position of the patentee in the hypothetical negotiation had been strengthened by the judgment of liability.²⁴⁴ The case was remanded for the rate determination.

The *Amado* reasoning was applied in the remanded trial proceedings in *Paice v. Toyota* as a basis for awarding a reasonable royalty higher than would have been arrived at under an application of the *Georgia-Pacific* factors before the judgment of liability.²⁴⁵

One approved methodology for calculating a post-verdict royalty is to use a post-judgment hypothetical negotiation.²⁴⁶ Since *Amado*, the Federal Circuit has reiterated that a post-verdict royalty calculation should focus on the parties' changed bargaining position, such as the impact of the defendant being an adjudicated infringer, as well as any changed economic circumstances, such as changes in the market for the patented products.²⁴⁷ One change to the parties' relationship is that post-verdict, ongoing infringement may be considered willful. Multiple district courts have found post-verdict infringement to be willful and took that into account in determining the ongoing royalty rate.²⁴⁸ Failure to focus on post-verdict factors can result in a post-verdict royalty rate that is too low to compensate the patentee.²⁴⁹ A post-verdict royalty may be either higher or lower than a royalty for

infringer must pay to a winning patentee who has been denied a permanent injunction, if the parties are unable to negotiate a mutually acceptable rate. *Telcordia Techs., Inc. v. Cisco Sys., Inc.*, 612 F.3d 1365, 1379, 95 U.S.P.Q.2d 1673 (Fed. Cir. 2010).

243. *Amado v. Microsoft Corp.*, 517 F.3d 1353, 86 U.S.P.Q.2d 1090 (Fed. Cir. 2008).

244. *Id.* at 1362.

245. *Paice LLC v. Toyota Motor Corp.*, 609 F. Supp. 2d 620, 630, 91 U.S.P.Q.2d 1835 (E.D. Tex. 2009); *see also* *Affinity Labs of Tex., LLC v. BMW N. Am., LLC*, 783 F. Supp. 2d 891 (E.D. Tex. 2011), *appeal dismissed by stipulation*, 462 F. App'x 958 (Fed. Cir. 2012).

246. *Fresenius USA, Inc. v. Baxter Int'l, Inc.*, 582 F.3d 1288, 1303, 92 U.S.P.Q.2d 1163 (Fed. Cir. 2009); *Arctic Cat*, 876 F.3d at 1370.

247. *ActiveVideo Networks*, 694 F.3d at 1342–43 (finding substantial shift in bargaining position of the parties existed where defendant “has been adjudicated to infringe and the patent has been held not invalid after a substantial challenge”); *XY, LLC v. Trans Ova Genetics*, 890 F.3d 1282, 1296–98 (Fed. Cir. 2018).

248. *Paice*, 609 F. Supp. 2d at 626 n.5; *Affinity Labs*, 783 F. Supp. 2d at 899. *But see Amado*, 517 F.3d at 1362.

249. *XY, LLC v. Trans Ova Genetics*, 890 F.3d 1282, 1296–98 (Fed. Cir. 2018).

pre-verdict infringement, depending on how circumstances have changed since the date of first infringement. However, the district court must identify economic factors that would justify such lowering of the rate.²⁵⁰

Another issue can arise in the interface between the equitable power of a court to deny a winning patentee an injunction and the setting of a post-verdict royalty rate that will adequately compensate for its injury. That issue depends on the damages model that the patentee presented to the jury. A patentee is not entitled to an ongoing royalty where the jury award included a lump-sum royalty for the life of the patent.²⁵¹ A patentee may still recover an ongoing royalty if the evidence does not indicate that the lump sum awarded by the jury was for the life of the patent.²⁵² Where it is ambiguous whether the jury awarded damages for future infringement, the district court has broad discretion to interpret the verdict.²⁵³

Further, if the damages model incorporated an up-front market entry fee as part of the sought-for damages, the payment of the fee can be considered probative that the parties expected the defendant to have an extended period in the market—a factor for denying the plaintiff a permanent injunction.²⁵⁴

Where a patent owner won at trial and was awarded damages for past infringement up to the end of trial, but thereafter infringement continued until the entry of a permanent injunction about seventeen months after the trial, the patentee should be permitted to present evidence to support an award of its post-verdict damages.²⁵⁵

As a general rule, laches will not affect the patentee's ability to receive an ongoing royalty for continuing acts of patent infringement. The Federal Circuit addressed the issue of laches in the context of an ongoing royalty in *SCA Hygiene Prods. AB v. First Quality Baby Prods., LLC*.²⁵⁶ There, the court held that although laches was a bar to legal

250. *Id.* at 1297–98.

251. *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, at 1300–01 (Fed. Cir. 2015).

252. *Whitserve, LLC v. Comput. Packages, Inc.*, 694 F.3d 10, at 35–38 (Fed. Cir. 2012).

253. *Telcordia Techs., Inc. v. Cisco Sys., Inc.*, 612 F.3d 1365, 1378–79, 95 U.S.P.Q.2d 1673 (Fed. Cir. 2010) (district court did not abuse discretion in interpreting jury's verdict as compensation for only past infringement and instructing parties to negotiate an ongoing royalty); *Prism Techs.*, 849 F.3d at 1377–79 (affirming denial of ongoing royalty where district court found the jury's damages award included royalties for past, present, and future).

254. *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1380–81, 85 U.S.P.Q.2d 1641 (Fed. Cir. 2008).

255. *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1212–13, 97 U.S.P.Q.2d 1161 (Fed. Cir. 2010).

256. *SCA Hygiene Prods. AB v. First Quality Baby Prods., LLC*, 807 F.3d 1311, 1331–33, 116 U.S.P.Q.2d 1541 (Fed. Cir. 2015) (en banc).

damages, laches did not preclude an ongoing royalty, absent extraordinary circumstances.²⁵⁷ The Supreme Court later overruled the Federal Circuit's determination that laches could bar legal damages, but was silent on the issue of what impact a laches defense may have on an ongoing royalty.²⁵⁸ As a result, an accused infringer may still wish to assert laches as a defense against ongoing royalties in future cases.²⁵⁹

§ 9:6 Proving the Amount of Damages

§ 9:6.1 Foundational Evidence Supporting Damages

The presentation of a damages case typically involves opinion testimony presented by a damages expert, as discussed in section 9:6.2. A foundation for that testimony is laid by fact and other expert witnesses, which can include the ones discussed in this section.

[A] Sales and Marketing Fact Witnesses

Sales and marketing witnesses of the patentee may be needed to testify to such subjects as:

- sales that have been taken from the patent owner by the infringer;
- any reduction of price made by the patentee in order to meet competition from the infringer;
- sales history of the patentee's device before and after the infringement;
- refusal of the patent owner to grant licenses or, if licenses exist, the relative market shares and the erosion of the patent owner's share by the infringement;
- price elasticity in the market for the products at issue and the patent owner's ability to raise prices;
- availability or absence of acceptable noninfringing substitutes;
- expulsion from the market of other devices by the patented product;

257. *Id.* at 1323–33.

258. SCA Hygiene Prods. AB v. First Quality Baby Prods., LLC, 137 S. Ct. 954 (2017).

259. *See* Am. Tech. Ceramics Corp. v. Presidio Components, Inc., No. 14-CV-6544(KAM)(GRB), 2018 WL 1525686, at *22–23 (E.D.N.Y. Mar. 27, 2018) (finding that based on plaintiffs' concession, defendant may assert laches defense against an award of an ongoing royalty should the action reach that stage).

- how the product at issue is marketed and sold; and
- similar topics related to the factual issues of the damages claim discussed above.

These witnesses may also testify to other damages factors, including evidence pertinent to the application of the entire market value rule to ancillary parts or whether there are sales of convoyed products that should be taken into consideration for setting of a reasonable royalty.

[B] Financial or Accounting Witnesses

It is sometimes necessary to present adverse witnesses from the infringer's accounting or sales staff to testify on the expectation of profit that the defendant believed it would achieve at the time the decision was made to go ahead with the infringing product.

It is common to include witnesses from the patentee's internal accounting staff to explain the patentee's financial records and procedures for determining costs and estimates of profit. These witnesses may also be required to authenticate many of the documents relied on for proof of damages.

[C] Licensing Witnesses

In a reasonable-royalty case where the patent owner already has licensees, either of the parties may wish to call the persons who negotiated licenses under the patent-in-suit or related patents to establish what an appropriate royalty rate would be. The parties may also call licensing experts who have negotiated numerous licenses in the same or a closely related industry.

A trial court did not err in allowing testimony on a reasonable royalty rate from a patentee's damages expert relying on allegedly noncomparable licensing agreements as benchmarks to support the testimony. The "degree of comparability" of license agreements and the alleged failure of the expert to "disaggregate the value of the patent license" from the value of services included in the license agreement was best addressed by cross-examination rather than exclusion.²⁶⁰ However, a damages expert's testimony relying on licenses must account for distinguishing facts between the agreement and the hypothetical negotiation, such as the inclusion of other patents or

260. *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 104 U.S.P.Q.2d 1241 (Fed. Cir. 2012); *see also* *Apple, Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1326, 110 U.S.P.Q.2d 1695 (Fed. Cir. 2014) ("[W]hether these licenses are sufficiently comparable such that Motorola's calculation is a reasonable royalty goes to the weight of the evidence, not its admissibility."), *overruled on other grounds by* *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349, 115 U.S.P.Q.2d 1105 (Fed. Cir. 2015).

technology, cross-licensing terms, and foreign intellectual property rights.²⁶¹

[D] Capacity Witnesses

Capacity witnesses are typically witnesses from the manufacturing and production sides of the business who may testify concerning the capacity of the patentee to satisfy the increased demand represented by the infringer's sales and discuss the technical bases on which issues of capacity will be contested, including the plaintiff's ability to raise capital sufficient to raise output and meet demand and the availability of labor in the vicinity. These witnesses may also include sales capacity witnesses to establish that the patent owner had an adequate sales force and distributor network to have made the sales taken by the infringer.

[E] Technical Experts

Both parties may also benefit from using a technical expert to support their damages case. For example, a technical expert may testify regarding the existence or absence of noninfringing substitutes and/or the ability to design around the patent in relation to the issue of lost profits or a reasonable royalty. Technical witnesses can also testify as to any advantages of the patented technology over the prior art and/or the comparability of other technology such as that in prior licenses on which the expert(s) may rely, for purposes of quantifying the value of the patented technology.

[F] Survey Experts

Under some circumstances, it may be appropriate to use a survey expert to show, for example, the basis for demand, the acceptability of a potential noninfringing alternative, the relative value of a patented component, etc.

§ 9:6.2 Use of a Damages Expert

[A] Selection of a Damages Expert

It is customary, in all but the smallest damages cases, to use an expert witness to present opinion testimony explaining the basis for the patent damages and to link it to the supporting foundational evidence by methodology consistent with proper accounting and economics principles and with leading Supreme Court and Federal Circuit precedents. To play this crucial role, there are two main types

261. *Ericsson*, 773 F.3d at 1227; *see also Finjan, Inc.*, 626 F.3d at 1211 (an expert's "use of past patent licenses . . . must account for differences in the technologies and economic circumstances of the contracting parties").

of damages expert witnesses—accountant experts and economist experts.

Which type of damages expert should be chosen is to a considerable extent a matter of preference based on the successful past experiences of the litigating attorney. Some cases may be better suited to an accountant expert, for example, where the major damages issues involve technical accounting matters, such as the proper application of overhead in multiproduct enterprises. Other cases may be better suited to an economist expert, for example, where the predominant issues involve price elasticity or other econometric modeling.

Damages experts can be identified in a variety of ways, for example, recommendations from other patent litigators; encounters in other litigation where they are assisting adversaries; their appearances on professional CLE programs; their published writings; the mailings which regularly cross the desks of law firms engaged in patent litigation; and expert search services. In choosing a damages expert, it can be helpful to interview several candidates. The right candidate often does not emerge until there has been an exchange of views between the litigation attorney and each prospective damages expert, because considerable discussion is needed to clarify the type of expertise best suited for the case at hand.

The damages expert should possess the qualifications and experience to satisfy the standards required under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*²⁶² However, it is not a ground for disqualification of a patent damages expert's testimony that his analysis relied on his resolution of a fact issue necessary to that analysis.²⁶³

[B] Protection of Attorney Work Product

Historically, case law tended to make any communication with the testifying expert and any documents shown to the testifying expert subject to discovery and outside the realm of the litigation attorney's work product.²⁶⁴ On December 1, 2010, Rules 26(a) and (b) of the

262. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993).

263. *Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 65 U.S.P.Q.2d 1532 (Fed. Cir. 2003).

264. *See Karn v. Ingersoll-Rand Co.*, 168 F.R.D. 633, 635 (N.D. Ind. 1996) (work product protection does not apply to documents provided by counsel to testifying experts related to matters of litigation). *But cf.* *B.C.F. Oil Ref., Inc. v. Consol. Edison Co. of N.Y., Inc.*, 171 F.R.D. 57, 62 (S.D.N.Y. 1997) (documents having no relation to expert's role as an expert need not be produced, but any ambiguity as to expert's role must be resolved in favor of party seeking discovery); *Haworth, Inc. v. Herman Miller, Inc.*, 162 F.R.D. 289, 293 (W.D. Mich. 1995) (requiring disclosure of factual information considered by the expert witness but not relied upon, as well as information that was considered and relied upon by the witness).

Federal Rules of Civil Procedure were amended to provide work product protection to draft expert reports and communications between attorneys and experts, except to the extent that the communications (1) relate to expert compensation; (2) identify facts or data provided by the party's attorney which the expert considered in forming his or her opinions; or (3) identify assumptions provided by the party's attorney which the expert relied on in forming his or her opinions to be expressed.²⁶⁵ The changes to Rule 26 also provide, for the first time, that experts who may testify but are not required to issue a report must nevertheless be disclosed along with "(i) the subject matter on which the witness is expected to present evidence under Federal Rule of Evidence 702, 703, or 705; and (ii) a summary of the facts and opinions to which the witness is expected to testify."²⁶⁶

The disclosure requirements under Rule 26 do not apply to a nontestifying consulting witness.

§ 9:7 Bifurcation of Damages

A party may move to bifurcate damages from liability. Although infrequent, even where such motions are granted, the order granting bifurcation usually limits the bifurcation to the trial, permitting discovery of damages to be conducted during the liability discovery period. In that case, if the jury finds liability, the trial can proceed with little delay to trial of the damages issue and a final judgment.²⁶⁷

On the other hand, there are cases in which the bifurcation order stays damages discovery until after the liability verdict.²⁶⁸ Factors that may justify bifurcation with an accompanying stay in damages discovery include extremely complex damages, liability, or other issues, or a likelihood of defendant's success on liability.²⁶⁹ In that case, after the verdict in the liability trial, there can be an appeal to the Federal

265. See FED. R. CIV. P. 26(b)(4)(C).

266. See FED. R. CIV. P. 26(a)(2)(C).

267. Cases entering bifurcation orders of this character include *Mag Instrument, Inc. v. J. Baxter Brinkmann Int'l Corp.*, 123 F.R.D. 543, 544, 10 U.S.P.Q.2d 1387 (N.D. Tex. 1988); *Naxon Telesign Corp. v. GTE Info. Sys., Inc.*, 89 F.R.D. 333, 341-42, 213 U.S.P.Q. 40 (N.D. Ill. 1980).

268. *Novopharm Ltd. v. Torpharm, Inc.*, 181 F.R.D. 308, 312, 48 U.S.P.Q.2d 1471 (E.D.N.C. 1998); *Provide Tech., Inc. v. E. Coast Heat Seal, Inc.*, 974 F. Supp. 65 (D. Mass. 1997).

269. *F&G Scrolling Mouse, L.L.C. v. IBM Corp.*, 190 F.R.D. 385, 395 (M.D.N.C. 1999) (denying motion to bifurcate trial and to stay discovery of the willfulness and damages issues where the above-mentioned factors were absent).

Circuit,²⁷⁰ and in the event of a final judgment against the patentee, the proceedings can conclude without either discovery or trial of the damages issues. Courts are reluctant, however, to grant a bifurcation order that defers discovery of damages until after trial of liability. They know that excessively protracted litigation not only increases the overall expense for a successful plaintiff but also may reflect badly on the trial court's case management record.²⁷¹

It has been argued that bifurcation that denies the patent owner the opportunity to have trial of damages before the same jury that tried the liability issue is an abridgement of the patentee's Seventh Amendment right to trial by jury. The prevailing view, however, is that, as long as liability and damages are tried as separate issues, bifurcation of liability and damages to two different juries does not violate the Seventh Amendment.²⁷²

§ 9:8 Demonstrative Exhibits

The trial of the damages issues almost always involves a presentation of mathematical calculations and accounting concepts which many jurors are unfamiliar with and may find difficult to follow. Also, the derivation of the basic damages numbers, for example, as total sales, allocated overhead, direct labor, materials cost, depreciation, gross profit, and so on, from masses of documents customarily involves presentation of data by summaries compiled from extensive document sources. Demonstrative exhibits, including graphics, can greatly aid and simplify the presentation of this data, the calculations, and the relationship of these core figures to the sources of data from which they came.

These graphics can include graphs, bar charts, pie charts, and simplified financial statements. They can be supplemented with more imaginative graphics that present the underlying concepts with pictures appropriate to the technology, cartoons, color coding, and other visual imagery. In creating persuasive demonstrative exhibits, an experienced damages expert firm (often with its own internal graphics department) can be particularly helpful.

270. See 28 U.S.C. § 1292(c)(2) ("The United States Court of Appeals for the Federal Circuit shall have exclusive jurisdiction . . . (2) of an appeal from a judgment in a civil action for patent infringement which would otherwise be appealable to the United States Court of Appeals for the Federal Circuit and is final except for an accounting.").

271. See *Laitram Corp. v. Hewlett-Packard Co.*, 791 F. Supp. 113, 117–18, 22 U.S.P.Q. 1597 (E.D. La. 1992); *Brown v. United States*, 179 F.R.D. 101, 107 (W.D.N.Y. 1998).

272. See *In re Innotron Diagnostics*, 800 F.2d 1077, 1086, 231 U.S.P.Q. 178 (Fed. Cir. 1986); *Mag Instrument*, 123 F.R.D. at 545; *Paine, Webber, Jackson & Curtis, Inc. v. Merrill Lynch, Pierce, Fenner & Smith, Inc.*, 587 F. Supp. 1112, 1116, 223 U.S.P.Q. 888 (D. Del. 1984).

§ 9:9 Prejudgment Interest

Under 35 U.S.C. § 284, the court is authorized to fix and award interest in the judgment. At the trial court's discretion, a plaintiff may be awarded interest from a time prior to the judgment, from a date when the damages should have been paid, in order to provide what is deemed full compensation to the patent owner.

Current awards of prejudgment interest are based on a doctrine originating in *General Motors Corp. v. Devex Corp.*²⁷³ In *Devex*, the Supreme Court overturned the standard of awarding interest only in cases of bad faith or exceptional circumstances, and reasoned that policy interests require that "prejudgment interest should ordinarily be awarded where necessary to afford the plaintiff full compensation for the infringement." Such an award is entirely under the court's discretion, and there are no statutory guidelines for granting or denying prejudgment interest awards. The Federal Circuit has frequently reversed the denial of prejudgment interest awards, following a policy of fully compensating the plaintiff.²⁷⁴

While *Devex* dealt with prejudgment interest on reasonable royalties, and made no mention of a lost profits calculation, the Federal Circuit has stated that such awards should apply equally to lost profits.²⁷⁵

Prejudgment interest may be applied only to the primary or actual damages portion of the judgment, and not to any enhanced or punitive portion of the judgment.²⁷⁶ Further, the interest should be calculated on the basis of damages on yearly sales, and not on the entire amount of damages from the date the infringement began.²⁷⁷ However, when a lump-sum reasonable royalty is awarded for infringement of multiple patents, prejudgment interest may be awarded against the entire royalty award, regardless of whether different hypothetical negotiation dates are involved.²⁷⁸

The interest rate applied is at the court's discretion. Typical interest rates that the courts have applied include the prime rate, the U.S.

273. *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 654, 217 U.S.P.Q. 1185 (1983).

274. *Hughes Tool Co. v. Dresser Indus., Inc.*, 816 F.2d 1549, 1559–60, 2 U.S.P.Q.2d 1396 (Fed. Cir.), *cert. denied*, 484 U.S. 914 (1987).

275. *Gyromat Corp.*, 735 F.2d at 556.

276. *Underwater Devices, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1389, 219 U.S.P.Q. 569 (Fed. Cir. 1983).

277. *Dragan v. L.D. Caulk Co.*, 12 U.S.P.Q.2d 1081 (D. Del. 1989), *aff'd*, 897 F.2d 538 (Fed. Cir. 1990).

278. *Comcast IP Holdings I LLC v. Sprint Commc'ns Co.*, 850 F.3d 1302, 1315, 121 U.S.P.Q.2d 1906 (Fed. Cir. 2017) (explaining that "[p]rejudgment interest runs from the earliest date of infringement for any patent issued at the time of the hypothetical negotiation" and affirming district court's

Treasury bill rate, and the rate the patentee has actually paid for borrowed funds. Some cases have stated that the default rate for prejudgment interest, in the absence of any other rate affirmatively demonstrated as more appropriate, is the prime rate.²⁷⁹ Interest may be uncompounded or compounded at annual, monthly, daily, or variable rates.

§ 9:10 Increased Damages

§ 9:10.1 Willfulness

35 U.S.C. § 284 provides for the increase of damages of up to three times the amount found, at the discretion of the court. While the statute does not state the basis on which damages may be increased, pursuant to case law, an increase may be ordered where the infringement is found to have been “willful.”²⁸⁰ A finding of willfulness often involves copying. However, “slavish copying” is not required.²⁸¹

In a 2016 decision, *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, the Supreme Court eased the requirements for proving willfulness that had been established in *In re Seagate Technology, LLC*.²⁸² *Seagate* required a patent owner to show by clear and convincing evidence that (1) “the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent”; and (2) the risk of infringement “was either known or so obvious that it should have been known to the accused infringer.”²⁸³ In *Halo*, the Supreme Court overruled the two-part *Seagate* test as inconsistent with section 284 and replaced it with a more flexible standard focused on whether the

award of prejudgment interest on entire lump-sum award, rather than apportioning it among three infringed patents based on respective patent’s hypothetical negotiation dates, where lump-sum verdict did not apportion damages among the three patents).

279. *Calabrese v. Square D Co.*, Case No. 97 C 2199, 2000 U.S. Dist. LEXIS 4307, at *23 (N.D. Ill. Mar. 23, 2000) (mem.); *Gorestein Enters., Inc. v. Quality Care-USA, Inc.*, 874 F.2d 431, 436–37, 10 U.S.P.Q.2d 1762 (7th Cir. 1989).
280. *Johns Hopkins Univ. v. CellPro*, 152 F.3d 1342, 1365, 47 U.S.P.Q.2d 1705 (Fed. Cir. 1998); *SRI Int’l, Inc. v. Advanced Tech. Labs., Inc.*, 127 F.3d 1462, 1468–69, 44 U.S.P.Q.2d 1422 (Fed. Cir. 1997) (both stating that a finding of willfulness supported a trebling of damages).
281. *Stryker Corp. v. Intermedics Orthopedics, Inc.*, 96 F.3d 1409, 1413, 40 U.S.P.Q.2d 1065 (Fed. Cir. 1996).
282. *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1932, 118 U.S.P.Q.2d 1761 (2016); *In re Seagate Tech.*, 497 F.3d 1360, 1371, 83 U.S.P.Q.2d 1865 (Fed. Cir. 2007).
283. *In re Seagate Tech.*, 497 F.3d at 1371.

infringement represents an “egregious case[] typified by willful misconduct” based on the particular circumstances of each case.²⁸⁴ The Court specifically took issue with *Seagate’s* “objective recklessness” requirement because it made “dispositive the ability of the infringer to muster a reasonable (even though unsuccessful) defense at the infringement trial.”²⁸⁵ Under the *Seagate* standard, “someone who plunders a patent—infringing it without any reason to suppose his conduct is arguably defensible—can nevertheless escape any comeuppance under section 284 solely on the strength of his attorney’s ingenuity.”²⁸⁶ The Court explained that willfulness should instead be “measured against the knowledge of the actor at the time of the challenged conduct.”²⁸⁷ The Court also lowered the evidentiary standard for awarding enhanced damages.²⁸⁸ Rejecting the clear and convincing evidence standard, the Court held that a patentee need only demonstrate willfulness by a preponderance of the evidence, consistent with historical patent litigation evidentiary requirements.²⁸⁹ The Court also overruled the standard of appellate review for willfulness.²⁹⁰ Under *Seagate*, enhanced damages awards were subject to a tripartite review on appeal: objective recklessness was reviewed de novo; subjective knowledge was reviewed for substantial evidence; and the ultimate decision of whether to award enhanced damages was reviewed for abuse of discretion.²⁹¹ The Court in *Halo* rejected this trifurcated appellate structure and replaced it with a single standard of review—abuse of discretion.²⁹² The Court explained that in “applying this discretion, district courts are to be guided by the sound legal principles developed over nearly two centuries of application and interpretation of the Patent Act.”²⁹³

The Federal Circuit has explained that *Halo* did not change the substantive standard for the second prong of the *Seagate* test, subjective willfulness.²⁹⁴ Thus, a jury instruction stating that the patentee must prove that the accused infringer “actually knew or should have known that its actions constituted an unjustifiably high risk of

284. *Halo*, 136 S. Ct. at 1933–34.

285. *Id.* at 1933.

286. *Id.*

287. *Id.*

288. *Id.* at 1934.

289. *Id.*

290. *Id.*

291. *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 682 F.3d 1003, 1005, 1008, 103 U.S.P.Q.2d 1088 (Fed. Cir. 2012).

292. *Halo*, 136 S. Ct. at 1934.

293. *Bard Peripheral Vascular*, 682 F.3d at 1005, 1008.

294. *WesternGeco LLC v. ION Geophysical Corp.*, 837 F.3d 1358, 1362–64, 115 U.S.P.Q.2d 1597 (Fed. Cir. 2016) (*Halo* did not change the substantive

infringement of a valid and enforceable patent” may still be proper after *Halo*.²⁹⁵ Following *Halo*, willfulness will be increasingly examined as a factual question regarding the infringer’s knowledge at the time of infringement, consistent with practice prior to *Seagate*.²⁹⁶ However, there is no per se lack of willfulness when the accused infringer lacks knowledge of the asserted patent; rather, intent can be inferred from the totality of the circumstances.²⁹⁷ Courts will also have more latitude after *Halo* to determine whether to award enhanced damages to a winning patentee.

Historically, in a jury-tried case, whether the infringement was willful has been a finding of fact to be made by the jury on a special interrogatory.²⁹⁸ The Federal Circuit has held that *Halo* did not change this “established law.”²⁹⁹ In a bench-tried case, the determination will be made by the court. A finding of willfulness does not compel an increase of damages because other factors may be considered by the court in exercising its discretion.³⁰⁰ Furthermore, a jury need not consider willfulness before a district court may exercise its discretion

standard for the second *Seagate* prong, remanding for determination of sufficiency of evidence of subjective willfulness under *Halo*’s preponderance of the evidence standard instead of *Seagate*’s clear and convincing evidence standard).

295. *Arctic Cat*, 876 F.3d at 1371.

296. *See, e.g., Exmark Mfg.*, 879 F.3d at 1353 (remanding to determine whether a new trial on willfulness is necessary where trial court erred in excluding evidence of closeness of prior art on issue of willfulness); *Georgetown Rail Equip*, 867 F.3d at 1245–46 (substantial evidence supports jury’s finding that patentee’s subjective recklessness led to willful infringement).

297. *WCM Indus., Inc. v. IPS Corp.*, 721 F. App’x 959, 969–70 (Fed. Cir. 2018) (patentee provided sufficient evidence to find willfulness under totality of circumstances despite infringer’s claim that it lacked knowledge of the asserted patent).

298. *Arachnid, Inc. v. Merit Indus., Inc.*, 939 F.2d 1574, 1577, 19 U.S.P.Q.2d 1513 (Fed. Cir. 1991) (court submitted special interrogatories to jury on issue of willfulness); *Nat’l Presto Indus., Inc. v. W. Bend Co.*, 76 F.3d 1185, 1189, 37 U.S.P.Q.2d 1685 (Fed. Cir. 1996) (jury found by special verdicts that there was not literal infringement, but that there was infringement under the doctrine of equivalents).

299. *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1341, 119 U.S.P.Q.2d 1301 (Fed. Cir. 2016); *see also id.* at n.13 (stating that there is a right to a jury trial on the willfulness question); *see also Exmark Mfg.*, 879 F.3d at 1353 (“[D]istrict court no longer determines as a threshold matter whether the accused infringer’s defenses are objectively reasonable. Rather, the entire willfulness determination is to be decided by the jury.”).

300. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1461, 46 U.S.P.Q.2d 1169 (Fed. Cir. 1998) (trial court’s denial of enhanced damages despite a showing of willfulness was not an abuse of discretion); *Juicy Whip, Inc. v. Orange Bang, Inc.*, 382 F.3d 1367, 1373, 72 U.S.P.Q.2d 1385 (Fed. Cir. 2004).

to deny enhanced damages based on the overall circumstances of the case.³⁰¹ Failure to notify the district court about the change in willfulness law stemming from *Halo* waives the issue on appeal.³⁰²

§ 9:10.2 Judicial Discretion on Enhancement

The statute places increase of damages in the discretion of the trial court. However, after a finding of willfulness is made, it can be an abuse of discretion for the trial court to deny any enhancement of damages, without explanation.³⁰³ Furthermore, the exercise of discretion does not require the district court automatically to increase the damages by the maximum amount of three times. One common approach for deciding whether—and by how much—to enhance damages is set forth in *Read*, which identified the following nine factors as bearing on the degree of enhancement.³⁰⁴

1. Whether the infringer deliberately copied the ideas or design of another;
2. Whether the infringer, when he knew of the other's patent protection, investigated the scope of the patent and formed a good-faith belief that it was invalid or that it was not infringed;
3. The infringer's behavior as a party to the litigation;
4. The infringer's size and financial condition;
5. The closeness of the case;

301. *Exergen*, 725 F. App'x at 971–72.

302. *Ultratec, Inc. v. Sorenson Commc'ns, Inc.*, No. 2017-1161, 2018 WL 2278246, at *4–5 (Fed. Cir. May 18, 2018).

303. *Jurgens v. CBK, Ltd.*, 80 F.3d 1566, 1571–73, 38 U.S.P.Q.2d 1397 (Fed. Cir. 1996); *cf. Transclean Corp. v. Bridgewood Servs., Inc.*, 290 F.3d 1364, 1377–78, 62 U.S.P.Q.2d 1865 (Fed. Cir. 2002) (sustaining discretion of trial judge to decline to enforce damages, after jury finding of willfulness, where trial court had carefully considered the factors bearing on its exercise of discretion); *Riles v. Shell Expl. & Prod. Co.*, 298 F.3d 1302, 1314, 63 U.S.P.Q.2d 1819 (Fed. Cir. 2002) (despite evidence of copying, trial court's denial of increase of damages was affirmed since issues were close and jury could have found for infringer).

304. *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 826–28, 23 U.S.P.Q.2d 1426 (Fed. Cir. 1992); *see also i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 858–59, 93 U.S.P.Q.2d 1943 (Fed. Cir. 2010), *aff'd*, 564 U.S. 91 (2011); *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 967 F. Supp. 861, 864, 43 U.S.P.Q.2d 1688 (E.D. Va.), *dismissed*, 129 F.3d 133 (Fed. Cir. 1997); *Va. Panel Corp. v. MAC Panel Co.*, 887 F. Supp. 880, 885 (W.D. Va. 1995), *aff'd*, 133 F.3d 860, 45 U.S.P.Q.2d 1225 (Fed. Cir. 2010), *aff'd*, 564 U.S. 91 (2011); (Fed. Cir. 1997), *cert. denied*, 525 U.S. 815 (1998); *Advanced Cardiovascular Sys., Inc. v. Medtronic, Inc.*, 265 F.3d 1294, 60 U.S.P.Q.2d 1161 (Fed. Cir. 2001); *NTP, Inc. v. Research in Motion Ltd.*, 270 F. Supp. 2d 751, 67 U.S.P.Q.2d 1594 (E.D. Va. 2003).

6. The duration of the infringer's misconduct;
7. Remedial action by the infringer;
8. The infringer's motivation for harm; and
9. The infringer's attempts to conceal its infringement.³⁰⁵

Although many district courts utilize the *Read* factors, a court is not required to consider them in determining enhanced damages.³⁰⁶ *Halo* merely requires that the court consider the particular circumstances of the case to determine whether the infringer's conduct is egregious.³⁰⁷ Failure to explain adequately the basis for enhancement or to discuss a particular defense that presented a close question can be an abuse of discretion.³⁰⁸

§ 9:10.3 Willfulness and Opinions of Counsel

The Federal Circuit held in 1988 that a defendant's refusal to produce an opinion of counsel during discovery justifies an inference that the opinion was adverse to the defendant.³⁰⁹ In 2004, the Federal Circuit overruled this precedent in *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.*,³¹⁰ holding that a negative inference of willful intent is not to be drawn from invocation of the privilege to refuse to produce an opinion of counsel obtained by the alleged infringer.³¹¹ Nor is it proper to draw an adverse inference of willful infringement merely for failure to obtain an opinion of counsel.³¹²

However, the Federal Circuit decision in *Knorr-Bremse* left standing an affirmative duty on a person who has actual notice of another's patent rights to exercise due care to determine whether or not he is infringing. In the 1983 *Underwater Devices, Inc. v. Morrison-Knudsen Co.* case, the Federal Circuit had imposed an affirmative duty on a defendant to obtain advice of counsel before commencing its accused activities that it would not incur liability for infringement of a known

305. *Read Corp.*, 970 F.2d at 826–28.

306. *Presidio Components*, 875 F.3d at 1382.

307. *Id.*

308. *Polara Eng'g Inc v. Campbell Co.*, 894 F.3d 1339, Nos. 2017-1974, 2017-2033, 2018 WL 3352611, at *11–12 (Fed. Cir. July 10, 2018).

309. *Fromson v. W. Litho Plate & Supply Co.*, 853 F.2d 1568, 1572–73, 7 U.S.P.Q.2d 1606 (Fed. Cir. 1988) (when infringer refuses to introduce an opinion letter, court is free to infer either that no opinion letter was obtained or that opinion was adverse to infringer).

310. *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.*, 383 F.3d 1337, 72 U.S.P.Q.2d 1560 (Fed. Cir. 2004).

311. 35 U.S.C. § 298 provides a similar protection.

312. 35 U.S.C. § 298.

patent.³¹³ In *Seagate*, the Federal Circuit concluded that the *Underwater Devices* willfulness standard was no longer consistent with Supreme Court precedent for willfulness and held as follows:

Accordingly, we overrule the standard set out in *Underwater Devices* and hold that proof of willful infringement permitting enhanced damages requires at least a showing of objective recklessness. Because we abandon the affirmative duty of due care, we also reemphasize that there is no affirmative obligation to obtain opinion of counsel.³¹⁴

As discussed above, in *Halo*, the Supreme Court overruled *Seagate's* objective recklessness requirement for proving willfulness. In doing so, the Court discussed a provision of the America Invents Act—35 U.S.C. § 298—which expressly states that the failure “to obtain the advice of counsel,” or the failure “to present such advice to the court or jury, may not be used to prove that the accused infringer willfully infringed the patent.”³¹⁵ As a result, the Supreme Court explicitly recognized an independent statutory basis under section 298 for eliminating the affirmative obligation to obtain advice of counsel created in *Underwater Devices*.

Although section 298 has dispensed with the affirmative duty to obtain an opinion of counsel to rebut willfulness, the existence of an opinion of counsel can be increasingly important to a successful willfulness defense under *Halo*. Multiple courts applying *Halo* have found no willfulness where defendants knew of the asserted patents before litigation and obtained opinions of counsel.³¹⁶ Thus, it is likely that more defendants will seek to rely on an opinion of counsel to

313. *Underwater Devices, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1389–90, 219 U.S.P.Q. 569 (Fed. Cir. 1983), *overruled by In re Seagate Tech., LLC*, 497 F.3d 1360, 1371, 83 U.S.P.Q.2d 1865 (Fed. Cir. 2007) (en banc).

314. *In re Seagate Tech.*, 497 F.3d at 1371.

315. *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1935 (2016).

316. *See, e.g., Greatbatch Ltd. v. AVX Corp.*, No. CV 13-723-LPS, 2016 WL 7217625, at *1, 121 U.S.P.Q.2d 1786 (D. Del. Dec. 13, 2016) (finding no willfulness where defendant obtained opinions of noninfringement and invalidity before infringing conduct began); *Loggerhead Tools, LLC v. Sears Holding Corp.*, No. 12-CV-9033, 2016 WL 6778881, at *2 (N.D. Ill. Nov. 15, 2016) (defendant’s pre-suit consultation with a patent attorney to develop invalidity and noninfringement opinions was “highly probative evidence of good faith”); *but cf. Arctic Cat*, 876 F.3d at 1371 (affirming finding of willfulness where district court found infringer “conducted only a cursory analysis of the patents [and] waited years before seeking advice of qualified and competent counsel”); *Polaris Eng’g*, 894 F.3d 1339, 2018 WL 3352611, at *10–11 (affirming willfulness finding where defendant provided no documentary or third-party evidence showing it received an opinion of counsel).

refute willfulness on the ground that the alleged infringer had a good faith belief that he was justified in proceeding based on the opinion. Opinions of counsel may also be increasingly relevant to the district court's decision whether to award enhanced damages.³¹⁷ A defendant may, therefore, face a dilemma—either produce the opinion and waive the privilege as to subject matter that extends beyond the opinion itself, or invoke the privilege and risk enhanced damages if liability for infringement is found at trial. Moreover, if the opinion was rendered by the same attorney who is trial counsel, production of the opinion may open the door to a motion for disqualification of trial counsel as a potential witness at the trial.

In *Seagate*,³¹⁸ the Federal Circuit directly addressed the problems of protecting the privilege of trial counsel's communications with the client and his or her work product after the client has produced an opinion from separate opinion counsel relied upon to refute willfulness. The Supreme Court's decision in *Halo* did not address this portion of the Federal Circuit's *Seagate* opinion.³¹⁹ The *Seagate* court acknowledged that opinions of opinion counsel and trial counsel have "significantly different functions."³²⁰ The court explained: "Whereas opinion counsel serves to provide an objective assessment for making informed business decisions, trial counsel focuses on litigation strategy and evaluates the most successful manner of presenting a case to a judicial decision maker."³²¹

Based on these significant differences in function, the court concluded that "fairness counsels against disclosing trial counsel's communications on an entire subject matter in response to an accused infringer's reliance on opinion counsel's opinion to refute a willfulness allegation."³²²

The court buttressed its reasoning with other considerations: that the demands of our adversarial system of justice will far outweigh any

317. *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 281 F. Supp. 3d 1087, 1094–95 (D. Nev. 2017) (denying enhanced damages where opinion letters provided infringer a basis to believe that it was not infringing and/or that the patent was invalid and other evidence failed to show "exceptional" circumstances); *Trs. of Bos. Univ. v. Everlight Elecs. Co.*, 212 F. Supp. 3d 254, 119 U.S.P.Q.2d 1583, 257 (D. Mass. 2016) (noting that defendant had hired two law firms to provide noninfringement opinions and obtained third-party testing in deciding that defendant had good faith belief its products did not infringe and enhanced damages were unwarranted despite jury's finding of willfulness).

318. *In re Seagate Tech.*, 497 F.3d at 1373.

319. *Halo*, 136 S. Ct. at 1923.

320. *In re Seagate Tech.*, 497 F.3d at 1373.

321. *Id.*

322. *Id.*

benefits of extending waiver to trial counsel,³²³ and that because willful infringement must find its basis in prelitigation conduct, communications with trial counsel have little, if any, relevance justifying disclosure.³²⁴ Interestingly, the court suggested that where an infringer's post-filing conduct is asserted to be reckless, a patentee who fails to seek, or obtain, a preliminary injunction should be barred from enhanced damages based solely on the infringer's post-filing conduct.³²⁵ Ultimately, the court held as follows:

In sum, we hold, as a general proposition, that asserting the advice of counsel defense and disclosing opinions of opinion counsel do not constitute waiver of the attorney-client privilege for communications with trial counsel. We do not purport to set out an absolute rule. Instead, trial courts remain free to exercise their discretion in unique circumstances to extend waiver to trial counsel, such as if a party or counsel engages in chicanery.³²⁶

The Federal Circuit also considered whether an advice-of-counsel defense against willfulness might also implicate a waiver of trial counsel's work product protection. The court, citing precedent, stated that "factual work product can be discovered solely upon a showing of substantial need and undue hardship, mental process work product is afforded even greater, nearly absolute, protection."³²⁷ It found that waiver was "quite limited" by precedent and concluded as follows:

Accordingly, we hold that, as a general proposition, relying on opinion counsel's work product does not waive work product immunity with respect to trial counsel. Again, we leave open the possibility that situations may arise in which waiver may be extended to trial counsel, such as if a party or his counsel engages in chicanery.³²⁸

Finally, the court pointed out that the work product protection was not limited to trial counsel's files but also protected nontangible work product, which could not be discovered by deposition of the trial attorneys.³²⁹

The *Seagate* court placed much emphasis upon the importance of protecting trial counsel from invasion of his or her privileged communications with the client or his or her work product in order to preserve

323. *Id.*

324. *Id.* at 1374.

325. *Id.*

326. *Id.*

327. *Id.* at 1375.

328. *Id.* at 1376.

329. *Id.*

the vitality of the adversary process. This emphasis suggests that a motion to disqualify defendant's trial counsel, on the grounds that he or she may be needed as a witness to discredit any opinion from separate opinion counsel that his or her client is relying on, may now become unattainable except in the rare case exhibiting "chicanery."

§ 9:10.4 Requirements for Opinion Adequacy

[A] Competence and Comprehensiveness

In general, should an accused infringer decide to obtain an opinion of counsel, the opinion should be a written opinion, since written opinions are viewed more favorably than oral opinions (which, nonetheless, have occasionally been accepted).³³⁰ The person rendering the opinion should be a registered U.S. patent attorney rather than a general attorney.³³¹ However, in at least one case, an opinion of a foreign qualified patent practitioner has been sufficient.³³² It is also preferable that the opinion should have been rendered by outside counsel rather than in-house patent counsel.³³³ However, in appropriate circumstances, an in-house patent counsel opinion can be adequate to avoid willfulness.³³⁴ The opinion of a nonlawyer is almost never adequate.³³⁵

The competence of the opinion should also be apparent from the opinion itself in terms of the matters considered. It must include, at a minimum, discussions of the accused device, composition, or method; the patent-in-suit; the prosecution history of the patent; the cited prior art; and any other pertinent prior art known to the renderer of the opinion.³³⁶

On invalidity defenses, all relevant elements of the defense should be discussed. For example, where a defense of obviousness is relied on, failure to evaluate objective evidence of nonobviousness in the opinion can render it incompetent.³³⁷ Every claim of the patent should be

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- 330. *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1580, 24 U.S.P.Q.2d 1321 (Fed. Cir. 1992).
 - 331. *Underwater Devices*, 717 F.2d at 1390.
 - 332. *Spindelfabrik Suessen-Schurr Stahlecker & Grill GmbH v. Schubert & Salzer Maschinenfabrik AG*, 829 F.2d 1075, 1084, 4 U.S.P.Q.2d 1044 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1063, 108 S. Ct. 1022 (1988).
 - 333. *Minn. Mining & Mfg. Co.*, 976 F.2d at 1580.
 - 334. *Studiengesellschaft Kohle, GmbH v. Dart Indus., Inc.*, 862 F.2d 1564, 1574-75, 9 U.S.P.Q.2d 1273 (Fed. Cir. 1988).
 - 335. *See, e.g., Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1370-71, 71 U.S.P.Q.2d 1081 (Fed. Cir. 2004).
 - 336. *Westvaco Corp. v. Int'l Paper Co.*, 991 F.2d 735, 744, 26 U.S.P.Q.2d 1353 (Fed. Cir. 1993).
 - 337. *Sensonics, Inc. v. Aerosonic Corp.*, 81 F.3d 1566, 1571, 38 U.S.P.Q.2d 1551 (Fed. Cir. 1996).

referred to, both for literal infringement and for infringement under the doctrine of equivalents.³³⁸ Any other defenses that are supported on the facts known to the accused infringer should also receive attention, such as inequitable conduct by the patent owner, lack of an enabling disclosure, patent misuse, intentional misjoinder or nonjoinder of inventors, and so on. In many situations, the facts of some of these defenses will be unknown to the infringer before litigation has commenced, at which time they arrive too late to be part of the original opinion of counsel relied on to defeat willfulness.

A competent opinion should also take into account which party bears the burden of proof on various issues. As discussed elsewhere in this book, the patent owner bears the burden of proof of infringement by the standard of a preponderance of the evidence and a potential infringer bears the burden of proof of invalidity by the standard of clear and convincing evidence.

A difficult question is how to deal with equivocal opinions. While an opinion should reach a reasoned conclusion coming down on one side or the other of an issue, the Federal Circuit has recognized that equivocation in an opinion does not require a finding of willfulness.³³⁹ Indeed, an opinion's failure to recognize that the outcome on a particular issue may be subject to some uncertainty (for example, on whether the trier of fact will find clear and convincing evidence of an intent to deceive in an inequitable conduct defense) would tend to detract from, rather than enhance, the credibility of the opinion.

[B] Timeliness

The timeliness of the opinion can be an important consideration relative to the time that the infringement began and the time that the infringer gained its knowledge of the potential infringement. It seems clear, at least pre-*Knorr Bremse*, that where the accused infringer had knowledge of the patent before the infringement commenced and copied the patented product without first receiving a competent opinion that it did not infringe, willfulness would be found.³⁴⁰ In *Critikon*, the Federal Circuit rejected a defendant's attempt to rely on eight separate written opinions, four of which were received after the marketing of the infringing catheters and the other four of which related to a different design and were superficial and conclusory. Thus,

338. *Westvaco Corp.*, 991 F.2d at 744 (opinion letter is competent if it discusses patent claims individually and opinion letter that omits discussion of equivalents will survive only if it has enough other indicia of competence).

339. *Id.*; *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 828, 23 U.S.P.Q.2d 1426 (Fed. Cir. 1992).

340. *Critikon Inc. v. Becton Dickinson Vascular Access, Inc.*, 120 F.3d 1253, 1259–60, 43 U.S.P.Q.2d 1666 (Fed. Cir. 1997), *cert. denied*, 523 U.S. 1071, 118 S. Ct. 1510 (1998).

citing the affirmative duty to obtain advice of counsel set forth in *Underwater Devices*, the court found the defendant had “demonstrated utter disregard for the need to obtain competent legal advice” and reversed the finding of no willful infringement.³⁴¹ As discussed above in section 9:10.1, no such affirmative duty to obtain an opinion of counsel exists post-*Seagate* and the adoption of 35 U.S.C. § 298. Nonetheless, the timing of an opinion of counsel can still be important in determining willfulness.

More difficult questions of timeliness arise in the context of an infringer that commenced its activity before the patent had issued or during the term of the patent without knowledge of it. In those circumstances, the question of timeliness must focus on the speed with which the defendant reacted after it did learn of the patent to assess whether or not it was infringing valid patent rights. Some delay is permissible, provided that it was not unreasonable.³⁴² However, a delay that is unreasonable because of its excessive length or lack of diligence can undermine the opinion.

§ 9:11 Award of Attorney Fees

The patent statute provides that “[t]he court in exceptional cases may award reasonable attorney fees to the prevailing party.”³⁴³

Where the prevailing party is the patent owner, the circumstances that may make a case exceptional for the award of attorney fees generally align with those that would justify increased damages, namely willful infringement.³⁴⁴ Where the court denies attorney fees despite an express finding of willful infringement, the court must explain why the case is not “exceptional.”³⁴⁵ The factors justifying a holding of willfulness have already been discussed.³⁴⁶

341. *Id.* (citing *Underwater Devices, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1390 (Fed. Cir. 1983), *overruled by In re Seagate Tech., LLC*, 497 F.3d 1360, 1371, 83 U.S.P.Q.2d 1865 (Fed. Cir. 2007) (en banc)).

342. *Am. Med. Sys., Inc. v. Med. Eng'g Corp.*, 6 F.3d 1523, 1531, 28 U.S.P.Q.2d 1321 (Fed. Cir. 1993) (opinion letter produced after defendant had been infringing for twenty months came too late to be reasonably relied upon), *cert. denied*, 511 U.S. 1070, 114 S. Ct. 1647 (1994).

343. 35 U.S.C. § 285.

344. *E.g., Amsted Indus., Inc. v. Buckeye Steel Castings Co.*, 23 F.3d 374, 376, 30 U.S.P.Q.2d 1470 (Fed. Cir. 1994).

345. *S.C. Johnson & Son, Inc. v. Carter-Wallace, Inc.*, 781 F.2d 198, 201, 228 U.S.P.Q. 367 (Fed. Cir. 1986) (remanding case where, with a finding of willful infringement, district court denied attorney fees without offering any other findings to enable review of denial); *but see* *Consol. Aluminum Corp. v. Fosco Int'l, Ltd.*, 910 F.2d 804, 814, 15 U.S.P.Q.2d 1481 (Fed. Cir. 1990) (where record is replete with undisputed facts that unequivocally support denial of attorney fees, district court is not required to explain its denial).

346. *See* section 9:10.1.

Since attorney fees are available to a “prevailing party” in the court’s discretion, they are also available to a defendant accused of infringement where the patent owner’s conduct was in bad faith in bringing the action. Historically, attorney fee awards to defendants have involved enforcement of a patent procured by fraud on the Patent and Trademark Office.³⁴⁷ The bringing of a patent infringement suit without any reasonable basis for contending infringement can also be the basis for an award of attorney fees to a prevailing defendant.³⁴⁸ A party who has entered into an agreement settling a patent lawsuit is not a “prevailing party” as required for recovery of its attorney fees and costs.³⁴⁹

In 2014, the Supreme Court eliminated some limitations that the Federal Circuit had imposed on the ability of district courts to determine whether or not a case amounted to an “exceptional case” justifying an award of attorney fees. In one of two cases decided on the same day, *Octane Fitness, LLC v. Icon Health & Fitness, Inc.*,³⁵⁰ the Court overruled a Federal Circuit limitation that exceptionality required a showing that the litigation was both objectively baseless and brought subjectively in bad faith and, further, that the showing must be by clear and convincing evidence. Instead, the Supreme Court held, an exceptional case is “one that stands out from others with respect to the substantive strength of a party’s litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated.”³⁵¹ Further, proof requires only the normal preponderance-of-evidence standard of civil and patent litigation. In the other case, *Highmark Inc. v. Allcare Health Management System*,³⁵² the Court held that the award of attorney fees under section 285 for an exceptional case was discretionary with the trial court and, further, that review of an exceptional case award should be for abuse of discretion and should not be de novo. In the years following *Octane Fitness* and *Highmark*, the Federal Circuit has found attorney fee awards appropriate in numerous cases under the more

347. *E.g.*, *Gardiner v. Gendel*, 727 F. Supp. 799, 804–05, 14 U.S.P.Q.2d 2043 (E.D.N.Y. 1989), *aff’d*, 976 F.2d 746 (Fed. Cir. 1992). But a holding of inequitable conduct does not mandate an award of attorney fees. *See* J.P. Stevens Co. v. Lex Tex, Ltd., 822 F.2d 1047, 1051–53, 3 U.S.P.Q.2d 1235 (Fed. Cir. 1987).

348. *Stillman v. Edmund Sci. Co.*, 522 F.2d 798, 800, 188 U.S.P.Q. 417 (4th Cir. 1975); *ICU Med. Inc. v. Alaris Med. Sys., Inc.*, 558 F.3d 1368, 1380–81, 90 U.S.P.Q.2d 1072 (Fed. Cir. 2009).

349. *Exigent Tech. Inc. v. Atrana Sols., Inc.*, 442 F.3d 1301, 1312, 78 U.S.P.Q.2d 1321 (Fed. Cir. 2006).

350. *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014).

351. *Id.* at 1756.

352. *Highmark Inc. v. Allcare Health Mgmt. Sys.*, 134 S. Ct. 1744 (2014).

lenient standard adopted by the Supreme Court.³⁵³ The Federal Circuit has also affirmed decisions to deny attorney fee awards and overturned fee awards for an abuse of discretion in multiple cases.³⁵⁴

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353. *Cases awarding attorney fees*: Nova Chems. Corp. v. Dow Chem. Co., 856 F.3d 1012, 1017–19, 119 U.S.P.Q.2d 1301 (Fed. Cir. 2017) (no abuse of discretion in awarding attorney fees as infringing plaintiff primarily relied on immaterial testimony from actions unrelated to the challenged judgment); Bayer CropScience AG v. Dow AgroSciences LLC, 851 F.3d 1302, 1307–08, 122 U.S.P.Q.2d 1052 (Fed. Cir. 2017) (no abuse of discretion in awarding attorney fees due to patentee pursuing case in spite of its own witnesses contradicting its theory of the case); Rothschild Connected Devices Innovations, LLC v. Guardian Prot. Servs., Inc., 858 F.3d 1383, 122 U.S.P.Q.2d 1801 (Fed. Cir. 2017) (abuse of discretion for district court to deny attorney fees because: (1) district court “fail[ed] to consider [the patentee’s] willful ignorance of the prior art”; (2) district court erroneously assessed evidence of patentee’s vexatious litigation conduct in other cases; and (3) district court improperly conflated sanctions under Rule 11 with relief under section 285); AdjustaCam, LLC v. Newegg, Inc., 861 F.3d 1353, 1358–62 (Fed. Cir. 2017) (abuse of discretion to deny fees because (1) district court failed to evaluate case under the totality of the circumstances and lower burden of proof required by *Octane Fitness*; (2) district court erred by not finding that the patentee’s suit became baseless after claim construction; (3) patentee litigated the case in an unreasonable manner by “repeatedly serving expert reports and declarations at the last minute”; and (4) patentee engaged in a pattern of seeking nuisance-value settlements); Lumen View Tech. LLC v. Findthebest.com, Inc., 811 F.3d 479, 481–83, 117 U.S.P.Q.2d 1465 (Fed. Cir. 2016) (no abuse of discretion in awarding attorney fees to alleged infringer when infringement allegations were not supported by patentee’s proposed claim constructions); Integrated Tech. Corp. v. Rudolph Techs., Inc., 629 F. App’x 972, 975–76 (Fed. Cir. 2015) (no abuse of discretion in awarding attorney fees to patentee when alleged infringer “hid its infringement for years, provided false discovery responses, filed summary judgment papers even though it knew its product infringed, argued a never fully explained theory that [the patentee] did not own the underlying patent, and during and after trial played semantic games regarding what its machines did and what functions were important to it and its customers”); Raniere v. Microsoft Corp., 887 F.3d 1298, 1308–09 (Fed. Cir. 2018) (no abuse of discretion in awarding attorney fees to defendants as patentee engaged in pattern of obfuscation and took bad faith positions to multiply the proceedings vexatiously and avoid dismissal); Inventor Holdings, LLC v. Bed Bath & Beyond, Inc., 876 F.3d 1372, 1378–80, 125 U.S.P.Q.2d 1019 (Fed. Cir. 2017) (no abuse of discretion in awarding attorney fees to accused infringer when the claimed subject matter is objectively ineligible under section 101 post-*Alice*); Huang v. Huawei Techs. Co., No. 2017-1505, ___ F. App’x ___, 2018 WL 2750540, at *5 (Fed. Cir. June 8, 2018) (no abuse of discretion in awarding attorney fees to the accused infringer even when the patentee appears pro se where record shows the patentee presented no evidence to support his position and litigated the case in a frivolous manner).
354. *Cases denying attorney fees*: Checkpoint Sys., Inc. v. All-Tag Sec. S.A., 858 F.3d 1371, 122 U.S.P.Q.2d 1786 (Fed. Cir. 2017), *cert. denied*, 138 S. Ct.

The conduct that can give rise to exercise of the court's discretion to award attorney fees can also be improper conduct of the litigant itself.³⁵⁵ In one recent case, the Federal Circuit went so far as to reverse a denial of attorney fees at least in part due to the patentee's pattern of litigation conduct over multiple cases.³⁵⁶ In another, the Federal Circuit reversed a denial of attorney fees in part due to the patentee seeking nuisance-value settlements against numerous defendants.³⁵⁷ However, the Federal Circuit has declined to "expand the scope of the statutory term 'exceptional'" to cover a patent owner's "bad-faith business conduct toward an accused infringer *prior to* litigation."³⁵⁸ The district court's finding of equitable estoppel against the patent owner, who had deceived the defendant into infringing, did not provide a basis for attorney fees under the "exceptional case" provision.³⁵⁹

650 (2018) (abuse of discretion for district court to award attorney fees due to patentee allegedly bringing suit with "improper motive" to protect its competitive advantage because "motivation to implement the statutory patent right by bringing suit based on a reasonable belief in infringement is not an improper motive"); *Vapor Point LLC v. Moorhead*, 832 F.3d 1343, 1350, 119 U.S.P.Q.2d 1722 (Fed. Cir. 2016) (reviewing record and finding no abuse of discretion in district court denying attorney fees in spite of district court not providing a "written explanation for its decision"); *Drone Techs., Inc. v. Parrot S.A.*, 838 F.3d 1283, 1287–88, 120 U.S.P.Q.2d 1336 (Fed. Cir. 2016) (abuse of discretion to award fees based on default judgment improperly entered as sanction for alleged infringer's failure to comply with discovery orders); *Site Update Sols., LLC v. CBS Corp.*, 639 F. App'x 634, 635–37 (Fed. Cir. 2016) (no abuse of discretion in denying attorney fees even though during claim construction patentee "vacillated on its theories to identify suitable structure for the means-plus-function terms"); *SFA Sys., LLC v. Newegg Inc.*, 793 F.3d 1344, 1347–52, 115 U.S.P.Q.2d 1758 (Fed. Cir. 2015) (no abuse of discretion in denying attorney fees despite patentee's filing of several lawsuits against numerous defendants); *Romag Fasteners, Inc. v. Fossil, Inc.*, 866 F.3d 1330, 1338–40, 123 U.S.P.Q. 2d 1629 (Fed. Cir. 2017) (district court abused discretion in awarding attorney fees to plaintiff because defendant's indefiniteness defense was not objectively unreasonable and frivolous and court erred in declining to consider plaintiff's prior litigation misconduct on the theory that failure to award fees would be equivalent to double-sanctioning the plaintiff); *Sarif Biomedical LLC v. Brainlab, Inc.*, 725 F. App'x 996, 1000 (Fed. Cir. 2018) (no abuse of discretion in denying attorney fees to the accused infringers based upon lack of evidence showing case is exceptional).

355. *Mathis v. Spears*, 857 F.2d 749, 754–56, 8 U.S.P.Q.2d 1551 (Fed. Cir. 1988).

356. *Rothschild Connected Devices Innovations*, 858 F.3d 1383 (abuse of discretion for district court to deny attorney fees because, inter alia, district court erroneously assessed evidence of patentee's vexatious litigation conduct in other cases).

357. *AdjustaCam*, 861 F.3d 1353.

358. *Forest Labs., Inc. v. Abbott Labs.*, 339 F.3d 1324, 1329, 67 U.S.P.Q.2d 1682 (Fed. Cir. 2003) (emphasis added).

359. *Id.*

When an attorney fee award is made, the party seeking the award is obligated to show the reasonableness of the amount sought. This will normally require a fully documented showing of the time records of the attorneys concerned. Typically, the awarding court may reduce the amount sought for various reasons such as the elimination of excessive time spent on particular items, overlapping billings, and the use of hourly charge rates which are higher than those customarily charged.³⁶⁰ Section 285 does not provide for an award of expert witness fees, above the daily amount provided for the attendance of any witness at trial under 28 U.S.C. § 1821(b).³⁶¹

Claims for attorney fees in patent cases are most commonly brought under the “exceptional case” basis of 35 U.S.C. § 285. Occasionally a claim for attorney fees is asserted on the different basis of 28 U.S.C. § 1927, that the losing attorney had multiplied the proceedings in the case “unreasonably and vexatiously.” In a patent case in which a section 1927 basis for attorney fees was asserted, the Federal Circuit, applying Second Circuit precedent interpreting section 1927, ruled that application of this section requires the trial court to make specific findings of fact evidencing the subjective bad faith of the attorney whose conduct is at issue.³⁶²

There is no Seventh Amendment right to a jury trial on attorney fees under 35 U.S.C. § 285, as such attorney fees are characterized as an equitable remedy because they raise issues collateral to and separate from the decision on the merits.³⁶³

§ 9:12 False Marking

§ 9:12.1 Under 1952 Act

Section 292(a) of the 1952 Patent Act provided for a fine of not more than \$500 for each offense by anyone who marks any unpatented article with the word “patent,” or any word or number indicating that it is patented, for the purpose of deceiving the public. Subsection (b) provided a *qui tam* basis for suit: “any person” may sue for the penalty, and the penalty amount shall be divided equally between the plaintiff and the U.S. government.

360. Note that in *Mathis*, the court approved use of the survey of charge rates compiled by the American Intellectual Property Law Association. *Mathis*, 857 F.2d at 756.

361. *Amsted Indus.*, 23 F.3d at 376.

362. *Advanced Magnetic Closures v. Rome Fastener Corp.*, 607 F.3d 817, 834, 95 U.S.P.Q.2d 1513 (Fed. Cir. 2010).

363. *AIA Am., Inc. v. Avid Radiopharmaceuticals*, 866 F.3d 1369, 1373, 123 U.S.P.Q.2d 1703 (Fed. Cir. 2017).

Application of this section had been infrequent for decades. In 2009, the Federal Circuit had a case in which to interpret the term “for each offense.”³⁶⁴ This term had been applied in earlier, pre-Federal Circuit case law to each decision or instance which resulted in a run of falsely marked products or to each time period during which false marking occurred. The Federal Circuit ruled that “Section 292 clearly requires a per article fine.”³⁶⁵

The court also addressed the issue of proof of intent to deceive by the patent marker:

A party asserting false marking must show by a preponderance of the evidence that the accused party did not have a reasonable belief that the articles were properly marked. An assertion by a party that it did not intend to deceive, standing alone, “is worthless as proof of no intent to deceive where there is knowledge of falsehood.”³⁶⁶

The holding in *Forest Group* that the penalty would be applied on a per article basis sparked a flood of *qui tam* actions, many involving high-volume, low-price items. One case involved plastic hot drink cup lids, marked with the numbers of two patents, which continued to sell in the multiple billions of units after the patents expired.³⁶⁷ The Federal Circuit affirmed the lower court’s denial of the penalty because the patentee successfully rebutted the inference of intent resulting from false marking and the patentee’s knowledge of the falsity. The court observed that the presumption of intent to deceive is weaker where the false markings are expired patents that previously covered the marked products. The court noted that there was a business explanation, namely that the molds for making the lids were very expensive and the patent numbers were part of the molds, and that there was a desire to use the molds until the end of their working life when they would be replaced with unmarked molds. Further, the patentee had obtained legal advice from its patent counsel that there should not be a problem if it waited until the molds were worn out before replacing them with molds lacking the marking. Also, the court emphasized that the packaging for the lids advised that the lids “may be covered” by one or more of the listed patents and provided the consumer with an address to contact for information on the coverage question. In light of this evidence, the court agreed with the trial court

364. *Forest Grp., Inc. v. Bon Tool Co.*, 590 F.3d 1295, 93 U.S.P.Q.2d 1097 (Fed. Cir. 2009).

365. *Id.* at 1302.

366. *Id.* at 1300 (citations omitted).

367. *Pequignot v. Solo Cup Co.*, 608 F.3d 1356, 95 U.S.P.Q.2d 1501 (Fed. Cir. 2010).

that the patentee had negated any inference of intent to deceive the public.

§ 9:12.2 *Under the America Invents Act*

Section 16 of the AIA³⁶⁸ made amendments to 35 U.S.C. § 292 that appear to have returned the section to its previous quiescent state. Those amendments “apply to all cases, without exception, that are pending on, or commenced on or after, the date of enactment of this Act [September 16, 2011].” The substantive amendments which drain the incentive for adverse parties to invoke the marking section include:

- Only the United States may now sue for the penalty authorized by section 292(a).³⁶⁹
- False marking of a product will not be a violation if the marking relates “to a patent that covered that product but has expired.”³⁷⁰

Section 16 does establish a right to file a civil action for damages in federal district court for any person “who has suffered a competitive injury” from the false marking, “for recovery of damages adequate to compensate for the injury.”³⁷¹ However, the twin difficulties of proof that (1) the false marking was made with intent to deceive, as required by *Pequignot v. Solo Cup Co.*,³⁷² and (2) a causal link between the false marking and the quantum of damages claimed,³⁷³ coupled with the difficulties of satisfying Rule 11 of the Federal Rules of Civil Procedure, appear to have provided a curb on the use of this civil action.

368. Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 16 (Sept. 16, 2011).

369. 35 U.S.C. § 292(a) (AIA).

370. 35 U.S.C. § 292(c) (AIA).

371. 35 U.S.C. § 292(b) (AIA).

372. *Pequignot*, 608 F.3d 1356.

373. *See, e.g., Gravelle v. Kaba Ilco Corp.*, 684 F. App'x 974, 979–80 (Fed. Cir. 2017) (plaintiff's speculative testimony failed to show causal link between false marking and competitive injury); *Sukumar v. Nautilus, Inc.*, 785 F.3d 1396, 1400, 114 U.S.P.Q.2d 1626 (Fed. Cir. 2015) (dismissing false marking claim for lack of competitive injury).