REMEDIES FOR PATENT INFRINGEMENT

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I. SCOPE OF DISCUSSION [2]

This paper focuses on what happens after a patent owner's rights have been infringed or allegedly infringed. Hopefully, the statutes and case law set forth below will give you a good place to start when you are evaluating what remedies may be available to you or your opponent. The primary authorities cited are opinions by the Court of Appeals for the Federal Circuit and the United States Supreme Court.

II. REMEDIES FOR PATENT INFRINGEMENT[3]

A. Compensatory Damages (35 U.S.C. § 284)

Title 35, section 284 provides in part that, "upon a finding for the claimant the court shall award the claimant damages adequate to compensate for infringement...." The purpose of compensatory damages is not to punish the infringer, but to render the patent owner whole. See Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 507, 84 S. Ct. 1526 (1964) ("the question to be asked in determining damages is: 'Had the infringer not infringed, what would the patent holder . . . have made?'"); General Motors Corp. v. Devex Corp., 461 U.S. 648, 654, 103 S. Ct. 2058 (1983)("damages adequate to compensate" means "full compensation for 'any damages' [the patent owner] suffered as a result of the infringement.") The amount of damages is a question of fact on which the plaintiff bears the burden of proof by a preponderance of the evidence. SmithKline Diagnostics, Inc. v. Helena Laboratories Corp., 926 F.2d 1161, 1164 (Fed. Cir. 1991). While there are no statutory limitations on the elements of a damage award that will constitute "full compensation" in a particular case, two general measures are often considered: (1) a reasonable royalty between a willing licensee and a willing licensor in a hypothetical market as it would have developed absent the infringement; or (2) lost profits measured in such a hypothetical market. See King Instruments Corp. v. Perego, 65 F.3d 941, 947 (Fed. Cir. 1995), *cert. denied*, 517 U.S. 1188 (1996)("Section 284 imposes no limitation on the types of harm resulting from infringement that the statute will redress.")

1. Reasonable Royalty

The base case for measurement of damages for patent infringement is provided by statute to be a reasonable royalty. Title 35, section 284 states that, "the court shall award 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."[4] Thus a reasonable royalty is considered the lower bound of potential compensatory damages for patent infringement. King, 65 F.3d at 947. This measurement is often used under circumstances where the patent owner is unable to prove lost profits.

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[2] This paper is not intended as legal advice of any kind, and is for general academic purposes only. Mr. Baroody is an attorney in the Intellectual Property Litigation Section of the Dallas office of Haynes and Boone, LLP and is licensed to practice before the USPTO.

[3] A Patent is a grant by the government of the right to exclude others from making, using or selling an invention for up to twenty years in exchange for full disclosure of the invention to the public. 35 U.S.C § 271.

[4] The House Committee on Patents Report (adopted by the Senate) states with respect to the amendment adding the reasonable royalty provision to the prior statute (section 4921 revised statutes):

> The object of the bill is to make the basis of recovery in patent-infringement suits general damages, that is, any damages the complainant can prove, not less than a reasonable royalty, together with interest from the time infringement occurred, rather than profits and damages.

SmithKline Diagnostics, Inc. v. Helena Labs. Corp., 926 F.2d 1161, 1164 at n.1(Fed. Cir. 1991)(citing 35 U.S.C.A. § 70 (1946)).

The Court of Appeals for the Federal Circuit has approved the practice of trial courts in allowing patent owners to present evidence at trial based on market reconstruction theories to demonstrate how their situation would have been improved in the absence of the infringing activity. Grain Processing Corp. v. American Maize-Prods. Co., 185 F.3d 1341, 1350 (Fed. Cir. 1999). This process necessarily requires the patentee to project economic results that did not in fact occur. Id. The reconstruction must also consider where relevant, alternative actions that an infringer would have been likely to take had he not infringed. Id.; see also Interactive Pictures Corp. v. Infinite Pictures, Inc., __ F.3d __, 2001 WL 1631791 (Fed. Cir. Dec. 20, 2001)(stating "[w]e have also endorsed the conceptual framework of a hypothetical negotiation between the patentee and the infringer as a means for determining a reasonable royalty," and approving use of the projections in a business plan prepared two months before infringement began.)

a. Factors to be Considered in Determining a Reasonable Royalty

In a detailed opinion styled Georgia-Pacific Corp. v. United States Plywood Corp., the United States District Court for the Southern District of New York held that there is no one formula that can be applied in every case to determine the amount of a reasonable royalty, but offered the following guidelines:

(1) evidence of an established royalty for licensing the patent-in-suit to non-parties;

(2) any royalties paid by the infringer to license comparable patents;

(3) whether the license would be exclusive or non-exclusive, or limited in territory;

(4) whether the patent owner had a policy not to license the patent to others based on a determination that its return on investment would be higher if the patent owner maintained its monopoly and solely exploited the invention in the market place (making the patent owner an "unwilling" licensee in the hypothetical market place);

(5) the nature of the commercial relationship between the patentee and infringer such as if they compete with each other;

(6) the ability of the sale of the patented product to generate sales of unpatented but related products of the patentee (also known as "convoyed sales");

(7) the duration of the patent in relation to the term of the proposed license;

(8) established commercial success of the patent;

(9) advantages of the patent property over the prior art;

(10) the character of the commercial embodiment of the patented invention;

(11) the extent to which the infringer has made use of the invention;

(12) the portion of the profit or of the selling price that may be customary in the particular business or in a comparable business to allow for 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, as well as business risks, the manufacturing process or significant features or improvements added by the infringer;

(14) the opinion testimony of qualified experts; and

(15) "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 accepted by a prudent

patentee who was willing to grant a license."

318 F. Supp. 1116, 1120 (S.D.N.Y. 1970), *modified*, 446 F.2d 295 (2nd Cir.), *cert. denied*, 404 U.S. 870 (1971)(district court concluded that where infringer's average realization on its infringing sales of striated fir plywood for the period of infringement was $159.41 per one thousand square feet, a royalty of $50 per one thousand square feet payable to the patent owner was reasonable and would still enable a substantial profit for infringer.)[5]

b. Recent Reasonable Royalty Calculation

The Federal Circuit in Grain Processing Corp. v. American Maize-Products Co. recently considered some of the factors used to analyze a hypothetical market to determine a reasonable royalty. 185 F.3d 1341 (Fed. Cir. 1999). The plaintiff, Grain Processing Corp. ("GPC") was the assignee of a patent for "Low D.E. Starch Conversion Products." The patent claimed a food additive known as maltodextrins which exhibited certain characteristics, one of which was that the product was a "waxy starch." GPC owned the patent rights for the "waxy starch" maltodextrin food additive from 1979 until the patent expired in 1991. GPC's business actually involved selling a line of maltodextrin food additives that were not covered by the patent because its products were made from a "non-waxy" starch. At the time the patent expired, food manufacturers were buying more than 200 million pounds of maltodextrin food additives annually. Id. at 1344-45.

GPC had acquired the patent as part of a transaction to purchase another company which had sold a food additive covered by the patent, but GPC had discontinued the sale of that product upon purchasing the company. However, when a competitor, defendant American Maize-Products ("AMP"), began manufacturing a competing maltodextrin food additive made from a waxy starch that was covered by the patent, and which was marketed as a substitute for GPC's product, GPC sued AMP in 1982 to enforce the patent. During the pendency of the initial suit, AMP modified its manufacturing process in an effort to engineer around the patent by producing a similar product. Both AMP's original product and the modified version were eventually determined to be infringing, and in 1988 the district court entered an injunction prohibiting AMP from making or selling either product. AMP then modified the process a third time, and believed that its test results indicated the resulting product did not infringe. However, the product from this third process was also later held to infringe because AMP had used a different (and therefore inadequate) standard chemical test than described in the patent to characterize the purportedly non-infringing composition of its product . Id. at 1344-46.

Beginning in April, 1991 until the patent expired in November, 1991, AMP used a fourth process, albeit at greater cost, to produce a maltodextrin food additive made from non-waxy starch that the parties agreed did not infringe the patent. The parties further agreed that consumers discerned no difference between AMP's food additive produced by any of the four processes, and GPC's food additive not covered by the patent. The district court also found, and the Federal Circuit affirmed, that the fourth process used by AMP to produce the non-infringing food additive had, in fact, been available to AMP since at least 1979, i.e. during the entire accounting period, but that AMP had declined to use it due to the greater cost. Id. at 1348, 1354-55.

In the course of a bench trial, GPC sought damages for lost profits based on lost sales of GPC's food additive, price erosion, and accelerated market entry by AMP after the patent expired. GPC further claimed that for any of AMP's sales not covered by an award of lost profits, GPC was entitled to a 28% royalty on AMP's infringing

[5] It has also been recognized that merely awarding the patent owner only that royalty which an infringer would have reasonably negotiated to license the invention, may place the infringer in a "win-win" situation that could encourage infringing activities, especially where the patent owner has refused to license the invention to the infringer or others for competitive reasons. King, 65 F.3d at 951. The infringer should not be entitled to obtain through his infringement that which he could not have obtained by contract in the market place. The potential that the court may award enhanced damages of up to three times the base award, as well prejudgement interest and attorneys fees, is intended in part to prevent an infringer from gaining such an advantage. Id.

sales. The district court held that a 3% reasonable royalty was adequate to compensate GPC, and denied recovery of lost profits entirely. (The district court held that the fourth process constituted an "available" non-infringing substitute
sufficient to bar the recovery of lost profits, and this issue is discussed further below.) Id. at 1347.

The Federal Circuit held that the district court had supported its royalty analysis with sound economic data and with actual, observed behavior in the market, and also commented:

> The [district] court candidly stated that the 3% rate is its "best estimate," an honest observation that would apply to most reasonable royalty analyses, given the difficulty of determining a hypothetical agreement between parties which did not actually agree on anything at all.

Id. at 1353, note 5. The creation of a hypothetical market in this case was all the more difficult because GPC did not actually sell the same maltodextrin food additive as AMP. The Federal Circuit noted that while both parties stated that they would not have agreed to a 3% royalty, neither party appealed the manner in which the royalty figure was calculated by the district court, and which yielded a damage award of approximately $2.4 million. Id.

The district court first considered testimony by GPC's expert on the royalty issue. He argued that the minimum demand a willing licensor (GPC) would make is the revenue it lost as the patent holder by granting a license. He estimated this figure at 7.7% of the anticipated sales of AMP, assuming that the negotiations were conducted in 1974 when AMP had just entered the business. The licensee's (AMP) maximum offer would then be its potential profit from selling the licensed product. He estimated this figure at 43% of AMP's net sales. Applying the factors listed in the Georgia-Pacific Corp. decision, the expert concluded that the parties would eventually have arrived at a royalty figure of 28% of AMP's net sales. 893 F. Supp. 1386, 1389 (N.D. Ind. 1995).

AMP's expert opined far differently and asserted the existence of an available non-infringing substitute, although at a slightly greater cost to AMP. This expert considered that the market for licenses of the patent portfolios for maltodextrin products of either AMP or GPC was relatively weak based on evidence that both companies had attempted to license these portfolios with only very limited success, and that several potential licensees had rejected a 5% royalty as too high. Other similar patents in this area were licensed at rates of 1% to 3%. Evidence was also introduced that the sale of the maltodextrin food additive was a high margin business. GPC's expert calculated a profit by AMP on the order of 43% of net sales. There was also evidence that GPC had settled other litigation regarding the same patent based on the granting of a license for a lump sum of approximately 3% of net sales. Id. 1389-93.

AMP's expert used these data to construct a hypothetical market and show why royalties in the real market place appeared to be capped at only 3%. The expert concluded that the answer lay in the marginal cost increase necessary to produce the non-infringing food additive by AMP's fourth process. The principal additional cost incurred to use the fourth process was for an additional enzyme as a raw material. AMP's expert calculated this additional cost at about 2.3%. However, the district court declined to limit the royalty at 2.3%, since as the infringer, AMP should bear the effects of uncertainties due to variations in the costs of other process materials, and additional costs savings AMP would have received from obtaining a license instead of engineering around the patent. The court also reviewed evidence of royalties obtained for licenses of the patent at issue and related patents as additional guidance. The basic assumption used by the district court was that a willing potential licensee (AMP) in a hypothetical market place would not offer to pay more in royalties to license a patent than it would cost that potential licensee to engineer around the patent by investing in equipment to produce a non-infringing maltodextrin food additive by the fourth process. The district court therefore concluded that a reasonable royalty in this case was 3% of AMP's net sales for the period between the date suit was filed and the date AMP adopted the fourth process. Id. at 1393-96.

c. Provisional Rights

Title 35, section 154(d), added by the American Inventors Protection Act of 1999, provides in part that, "a patent shall include the right to obtain a reasonable royalty from any person who, during the period beginning on the date of publication of the application...and ending on the date the patent is issued" engages in infringing conduct concerning the invention as published in the patent application. Infringing conduct for purposes of § 154(d) includes one who "makes, uses, offers for sale, or sells in the United States" the invention. To recover under this section, the infringer must have had actual notice of the published patent application, and the invention as claimed in the issued patent must be "substantially identical" to the invention as claimed in the published patent application. 35 U.S.C. § 154(d)(1)(B), (d)(2). The limitations period for this action is 6 years after the patent issues. 35 U.S.C. § 154(d)(3). The USPTO has issued final rules for implementation of the 18-month publication of patent applications. 65 Fed. Reg. 57023 (September 20, 2000). The rules became effective on November 19, 2000.

2. Lost Profits

Damages for patent infringement based on lost profits may include diverted sales, price erosion and increased expenditures caused by the infringement. Hebert v. Lisle Corp., 99 F.3d 1109, 1119 (Fed. Cir. 1996).; see also Minco, Inc. v. Combustion Eng'g, Inc., 95 F.3d 1109, 1118, (Fed. Cir. 1996); Lam, Inc. v. Johns-Manville Corp., 718 F.2d 1056, 1065 (Fed. Cir. 1983). The Federal Circuit has held that damage awards may not be based upon speculation, but must be established by evidence. Hebert, 99 F.3d at 1119. In order to prove damages based on lost profits the patentee must be able to establish causation such that "but for" the infringement, there is a reasonable probability that the patentee would have made the sales and profits alleged to have been lost due to infringement. King Instruments Corp. v. Perego, 65 F.3d 941, 952 (Fed. Cir. 1995), *cert. denied*, 517 U.S.1188 (1996); State Indus., Inc. v. Mor-Flo Indus., Inc., 883 F.2d 1573, 1577 (Fed. Cir. 1989), *cert. denied*, 493 U.S. 1022 (1990); Del Mar Avionics, Inc. v. Quinton Instrument Co., 836 F.2d 1320, 1326 (Fed. Cir. 1987). The Federal Circuit has held that there is no one particular test by which a patent owner must show lost profits, and that the methodology for assessing and computing such damages is within the discretion of the district court. King Instruments, 65 F.3d at 952.

a. Panduit Test

A permissible test for proving lost profits was enunciated by the Sixth Circuit in Panduit Corp. v. Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152, 1156 (6th Cir. 1978) and has subsequently been approved by the Federal Circuit. Pall Corp. v. Micron Separations, Inc. 66 F.3d 1211, 1222 (Fed. Cir. 1995), *cert denied*, 520 U.S. 1115 (1997). To demonstrate lost profits under the evidentiary guideline set out in Panduit, the patentee must show:

> (1) that there was a demand for the patented product; (2) the absence of acceptable noninfringing substitutes; (3) that the patentee was capable of meeting the demand; and (4) the amount of profits lost. This guideline facilitates the determination of damages by stating conditions which allow the inference that the patentee would reasonably have made the infringer's sales.

Id.; (remanding to district court for recalculation of lost profit damages by increasing the lost sales covered from 25% to 100% of sales of product by infringer prior to the date that third-party seller of competing product settled infringement claim with patent owner); see Del Mar Avionics, Inc. v. Quinton Instrument Co., 836 F.2d 1320, 1327 (Fed. Cir. 1987). The court in Panduit held that the patent owner was not entitled to recovery of lost profits because of insufficient evidence to allow determination of the profit that would have been made, and specifically referenced lack of evidence as to the patent owner's fixed costs. 575 F.2d at 1157.

b. Availability of Non-Infringing Alternatives

To accurately reconstruct the "but for" market place requires consideration of available non-infringing alternatives. Grain Processing Corp. v. American Maize-Products Co., 185 F.3d 1341, 1353 (Fed. Cir. 1999). The existence of such alternatives provides evidence that the sale of the infringing product would not, in fact, have resulted in a "lost sale" that the patent owner would reasonably otherwise have made. Id. It is not necessary that the non-infringing alternative actually have been produced and sold during the period of infringement, as long as it is possible that it could have been. Id. A rational would-be infringer would consider offering both existing alternatives in the market place, as well as other known alternatives, rather than leave a market altogether when faced with a competitor's patent. Id. To award the patent owner lost profits on sales that could have been satisfied by such alternatives would therefore overvalue the patent owner's exclusive right, and therefore the patent owner is limited to a reasonable royalty under such circumstances. Id.

The patent owner in Grain Processing had argued that it was entitled to lost profits of over $35 million for sales of a competitor's infringing food additive. However, the parties agreed that customers considered a similar non-infringing food additive recently introduced by the infringer as equivalent to the patented food additive. There was also evidence that the process to manufacture the non-infringing product had been known for many years although the process was more expensive than making the patented product, and that the non-infringing food additive could have been manufactured by the infringer from the beginning of the period of infringing sales. The Federal Circuit therefore affirmed the district court's denial of lost profit damages to the patent owner and limitation of the award to a reasonable royalty amounting to approximately $2.4 million. Id. at 1353.

c. Making, Using or Selling of Patented Invention Not Required

A patent owner may make a business decision not to exploit a patented product or process, and instead market a related product or process which is not subject to patent protection. This situation might arise where the patent owner is unable to manufacture or market a product as efficiently as other competitors, and it may be to the patent owner's advantage, instead, to preclude its competitors from marketing the patented product. The patent right itself is exclusionary, and does not require the owner to practice the invention in order to maintain the patent. See 35 U.S.C. §271; Rite-Hite Corp. v. Kelley Co. Inc., 56 F.3d 1538, 1547 (Fed. Cir. 1995), *cert. denied*, 516 U.S. 867 (1995). The patent owner may therefore believe it has still suffered harm where a competitor markets a product or process covered by the patent, which then causes the patent owner to lose sales of its competing nonpatented product or process.

The Federal Circuit has addressed this issue in several opinions. In King Instruments Corp. v. Perego, the court considered circumstances where the plaintiff, King Instruments, owned a patent on a splicing device for magnetic tape to be loaded into cassettes. 65 F.3d 941 (Fed. Cir. 1995), *cert denied*, 517 U.S. 1188 (1996). The district court found that co-defendant Tapematic, had infringed the patent and the Federal Circuit affirmed. However, Tapematic argued that King Instruments was not entitled to lost profit damages because King Instruments did not make, use or sell a device covered by the patent. King Instruments countered that it had still been damaged through lost sales of the splicing machine it did sell that competed with the Tapematic device, even if the King Instrument machine was not covered by the patent. Id. at 946-48.

The Federal Circuit reasoned that the goal of 35 U.S.C. § 284 is to provide a patent owner with adequate compensation. The court found no statutory language or legislative intent that damages for lost profits be awarded to a patent owner only in the event the patent owner had chosen to practice the invention. The court stated:

> the Patent Act creates an incentive for innovation. The economic rewards during the period of exclusivity are the carrot. The patent owner expends resources in expectation of receiving this reward. Upon grant of the patent, the only limitation on the size of the carrot should be the dictates of the marketplace. Section 284 attempts to ensure this result by deterring infringers and recouping market value lost when deterrence fails.

Id. at 950. The Federal Circuit held that a patentee need not make, use or sell the invention in order to be harmed by infringement of its patent by a competitor. The court affirmed the damage award in favor of King Instruments including lost profits on machines that King Instruments would have sold but for the infringement by Tapematic.

The Federal Circuit addressed a similar situation in Rite-Hite Corp. v. Kelley Co. Inc. where Rite-Hite marketed a device for securing trucks to a loading dock. 56 F.3d 1538 (Fed. Cir. 1995), *cert. denied*, 516 U.S. 867 (1995). The Rite-Hite product was not covered by the patent at issue, but the similar product marketed by Kelley was covered by a patent owned by Rite-Hite. The district court found that of the 3,825 infringing devices sold by Kelley, Rite-Hite would have made 3,243 more sales of its competing device. Kelley argued that lost profits were not authorized by § 284 because the Rite-Hite devices were not covered by the patent which Kelly had infringed. The Federal Circuit agreed that normally, if the patentee is not selling any product at all, there can be no lost profits. However, the Federal Circuit considered the goal of the patent statute to provide adequate compensation for infringement, and the fact that in these circumstances actual lost profits did exist and could be proved. The court concluded that Panduit was not the exclusive test for determining lost profits and that where it could be proven that the lost sales of the unpatented device were reasonably foreseeable and were caused in fact by the infringement, the lost profits were compensable under § 284. The Federal Circuit therefore affirmed the district court's award of lost profits to Rite-Hite. Id. at 1549.

d. Price Erosion and Accelerated Market Re-Entry

The district court is not limited to any one method or calculation to determine the damages that were a reasonably foreseeable result of infringement in the relevant market place. Rite-Hite, 56 F.3d at 1546. To prove additional damages due to "price erosion" of the patentee's product or process, the patentee must show that, but for the infringement, the patentee would have been able to charge higher prices. Minco, Inc. v. Combustion Eng'g, Inc., 95 F.3d 1109, 1120 (Fed. Cir. 1996) (affirming denial of price erosion damages where market forces separate from infringer's competing sales existed and resulted in lower prices in the fused silica market); see also Crystal Semiconductor Corp. v. Tritech Microelectronics Int'l, Inc., 246 F.3d 1336, 1355 (Fed. Cir. 2001)("the patentee must also present evidence of the (presumably reduced) amount of product the patentee would have sold at the higher price"). Similarly, a patentee may seek damages for the profits it would lose from increased competition due to an accelerated re-entry into the market place resulting from infringement activities. Bic Leisure Prods., Inc. v. Windsurfing Int'l., Inc., 687 F. Supp. 134, 137-38 (S.D.N.Y. 1988), *rev'd in part on other grounds*, 1 F.3d 1214 (Fed. Cir. 1993)(denying motion to limit accounting to exclude damages based on projected lost profits due to depressed sailboard prices, and accelerated re-entry into the market due to infringement).

3. Damages Split as Lost Profits and Reasonable Royalty

In some cases, it may be possible for a patent owner to prove lost profits as to some, but not all infringing sales. A split award between lost profits and a reasonable royalty may then be made. The district court in Fonar Corp. v. General Elec. Corp., considered the application of the Panduit guidelines where the patent at issue was owned by a relatively small company that could only have manufactured a sufficient number of additional magnetic resonance imaging ("MRI") machines to meet some, but not all, of the sales of infringing devices lost to General Electric ("GE"). 902 F. Supp. 330, 351 (E.D.N.Y. 1995), *aff'd in part, rev'd in part*, 107 F.3d 1543, 1556 (Fed. Cir. 1997), *cert denied*, 522 U.S. 908 (1997)(reinstating jury award of damages for infringement of a second patent). The jury found that GE had sold 600 infringing scanners. Fonar's economic expert testified that since all scanners sold by its competitors were considered to infringe, every sale in the market should be considered a lost sale. The evidence was disputed as to the ability of Fonar to have produced this number of machines. Evidence was introduced that at its peak rate of production, Fonar could have produced 8 scanners per month as of 1988. However, Fonar contended that with substantial opportunities for growth of the company, it could have produced up tp 500 machines are year by 1992. The jury found that Fonar had a reasonable possibility of selling 75 additional scanners "but for" GE's infringement. The jury awarded Fonar lost profits of $27,825,000 for the lost sales of the 75 scanners, and a reasonable royalty of $34,125,000 on the remaining 525 infringing units. Fonar, 902 F. Supp. at 351-53; see also Crystal Semiconductor Corp. v. Tritech Microelectronics Int'l, Inc., 246 F.3d 1336, 1354 (Fed. Cir. 2001)("a patentee may obtain lost profit damages for that portion of the infringer's sales for which the patentee can demonstrate 'but for' causation and reasonable royalties for any remaining infringing.")

4. Entire Market Value Rule

This rule provides that sales of unpatented products that may be sold along with a patented device, or where the patented device is incorporated as part of a larger machine, may be included in damages for lost profits or a reasonable royalty, where the patented feature is "the basis of customer demand" for an entire machine or where the separate unpatented components are functionally related to the patented components. Rite-Hite Corp. v. Kelley Co. Inc., 56 F.3d 1538, 1547 (Fed. Cir. 1995)(reversing district court award of lost profit damages for convoyed sales of unpatented dock leveler marketed with a device for securing a truck to a loading dock because the two devices could be used separately and the dock leveler was not sufficiently functionally related to the securing device); see also Interactive Pictures Corp. v. Infinite Pictures, Inc., __ F.3d __, 2001 WL 1631791 (Fed. Cir. Dec. 20, 2001)(the patent owner's expert witness "did not provide for an unfair double recovery by factoring the bundling and convoying sales into the royalty rate [and] [t]he jury was entitled to rely on evidence of bundling and convoyed sales in determining the proper scope of the royalty base); Bose Corp. v. JBL, Inc., __ F.3d __, 2001 WL 1598041 (Fed. Cir. Dec. 17, 2001)("porting" feature of loudspeaker system was substantial basis of increased customer demand and supported reasonable royalty based on entire value of loudspeakers); Fonar Corp. v. General Electric Corp., 107 F.3d 1543, 1565 (Fed. Cir. 1997)(jury properly considered value of entire MRI machine on which to base a reasonable royalty where sales literature proclaimed the patented feature of the machine was a "recent advance."); Festo Corp. v. SMC Corp. 72 F.3d 857, 868 (Fed. Cir. 1995), *cert. granted, judgment vacated by* 520 U.S.1111 (1997), *reh'g enbanc*, 234 F.3d 558 (Fed. Cir. 2000)(where evidence showed that "accessory sales" of items sold with infringing magnetically coupled rodless cylinders had no independent use or market, and items were necessary for cylinders to function, these accessory items were properly included in calculation of lost profits).

5. Alternative Remedy for Design Patents[6]

Title 35, section 289 provides that an infringer of a design patent may be liable to the patent owner to the extent of the infringer's total profit**:**

> Whoever during the term of a patent for a design, without license of the owner, (1) applies the patented design, or any colorable imitation thereof, to any article of manufacture for the purpose of sale, or (2) sells or exposes for sale any article of manufacture to which such design or colorable imitation has been applied shall be liable to the owner to the extent of his total profit, but not less than $250, recoverable in any United States district court having jurisdiction of the parties...

See Nike, Inc. v. Wal-Mart Stores, Inc., 138 F.3d 1437, 1439 (Fed. Cir. 1998), *cert. denied*, 120 S. Ct. 363 (1999)(section 289 provides an alternate remedy for infringement of Nike's "Air Mada Mid" model athletic shoe design patent)**.**

6. Enhanced Damages

The district court has the discretion under 35 U.S.C. § 284[7] to increase an award of damages "up to three times the amount found or assessed" by a jury or the court. Graco, Inc. v. Binks Mfg. Co., 60 F.3d 785, 792 (Fed. Cir. 1995). While there is no statutory standard dictating when the court should exercise this discretion, the case law has evolved to allow an award of enhanced damages where the infringer acted with "wanton disregard" for the patentee's patent rights; in other words, where there is a determination that the infringement was "willful." See Crystal Semiconductor Corp. v. Tritech Microelectronics Int'l, Inc., 246 F.3d 1336, 1351, (Fed. Cir. 2001); Read Corp. v. Portec, Inc., 970 F.2d 816, 826 (Fed. Cir. 1992). Once a determination of willful infringement has been made, the court has the discretion, but is not required, to award enhanced damages. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1461 (Fed. Cir. 1998). A maximum enhanced damage award of "three times" is inclusive of, and not in addition to the base award. Signtech USA, Ltd. v. Vutek, Inc., 174 F.3d 1352, 1359 (Fed. Cir. 1999)(magistrates' judgement awarding basic damages of $140,000 plus enhanced damages of $420,000 was modified such that the $420,000 award would include the $140,000 basic damage award.) Willfulness is a fact question, and includes

[6] A Design Patent may be awarded to whoever invents any new, original and ornamental design for an article of manufacture, subject to the conditions and requirements of this title. 35 U.S.C. § 171.

[7] Enhanced damages are not available under §284 regarding provisional rights arising from pre-issuance publication.

elements of intent, reasonableness, and belief. Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1222 (Fed. Cir. 1995). Willfulness must be proved by clear and convincing evidence. Id. (citing E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 1440 (Fed. Cir.), *cert. denied*, 488 U.S. 986 (1988)). Conduct such as unnecessarily prolonging litigation, attorney or client misconduct in litigation, or inequitable conduct before the PTO do not relate to acts of infringement, and therefore cannot support an award of enhanced damages under §284. Jurgens v. CBK Ltd., 80 F.3d 1566, 1570 (Fed. Cir. 1996).

7. Factors to be considered in determining enhanced damages

It is well settled that where a potential infringer has actual notice of another's patent rights, there is an affirmative duty of care to avoid infringement. Id. at 1571; Underwater Devices Inc. v. Morrison-Knudsen Co., 717 F.2d 1380, 1389-90 (Fed. Cir. 1983)("Where, as here, a potential infringer has actual notice of another's patent rights, he has an affirmative duty to exercise due care to determine whether or not he is infringing"); see also Amsted Indus. v. Buckeye Steel Castings Co., 24 F.3d 178, 181 (Fed. Cir. 1994); Electro Med. Sys. S.A. v. Cooper Life Sciences, Inc., 34 F.3d 1048, 1056 (Fed. Cir. 1994). The Federal Circuit in Read Corp. v. Portec, Inc. set out the following factors to consider in deciding whether to award enhanced damages:

(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) defendant's size and financial condition;

(5) closeness of the case;

(6) duration of defendant's misconduct;

(7) remedial action by the defendant;

(8) defendant's motivation for harm; and

(9) whether defendant attempted to conceal its misconduct (i.e. destroying sales records).

970 F.2d 816, 826-27 (Fed. Cir. 1992)(reversing judgement based on jury finding of willful infringement where there was insufficient evidence for a reasonable jury to have concluded that infringer did not have a good faith belief that it was not infringing based on substantial efforts to design around the patent and in reliance on a thorough opinion letter)(citations omitted). The essential question is to determine the egregiousness of the infringer's conduct based on all the facts and circumstances. Id. The duty is often satisfied by obtaining a competent legal opinion, but the absence of such an opinion does not require a finding of willfulness. Id. at 828. The essential question then becomes whether the infringer acted in good faith by, for example, determining that an asserted patent was invalid, not infringed or subject to a licensing agreement. Even if infringement is subsequently found despite these good faith investigations, the infringer will be liable for compensatory, but not enhanced damages. See, e.g., Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1222 (Fed. Cir. 1995)(where infringer switched to manufacturing a non-infringing product three years into the litigation concerning the patent, district court erred in finding willful infringement on this basis alone); Sensonics, Inc. v. Aerosonic Corp., 81 F.3d 1566, 1571 (Fed. Cir. 1996)(infringement not willful despite delay of eight months between infringer receiving notice of lawsuit for patent infringement and consulting patent counsel regarding opinion of non-infringement).

If, however, the infringer did not conduct a good faith investigation, but merely copied the patent, failed to seek an opinion of competent patent counsel, or intentionally obtained merely conclusory opinions of counsel designed as a shield for use in litigation, enhanced damages may be awarded. Jurgens, 80 F.3d at 1571. For example, the Federal Circuit in Critikon, Inc. v. Becton Dickinson Vascular Access, Inc. reversed the finding in the district court that infringement was not willful. 120 F.3d 1253, 1259 (Fed. Cir. 1997), *cert. denied*, 523 U.S. 1071 (1998). Becton Dickinson had argued that it had reasonably relied on eight separate opinions of counsel to determine that its intravenous catheter did not infringe the patents at issue, and the district court agreed. The Federal Circuit noted that only four of the opinions were obtained prior to marketing the catheter at issue. In addition, these four opinions discussed a "short nose" version of the catheter which arguably fell outside the claims of the patent, and which Becton Dickinson found was dangerous and never marketed. The Federal Circuit emphasized the evidence that Becton Dickinson had subsequently changed the design of the catheter to a "long nose" version, but did not obtain a new opinion of counsel as to the design change. Further, the Federal Circuit concluded that the four opinions were "superfluous and conclusory" because the opinions failed to analyze specific claims, did not interpret claim language, did not discuss the means-plus-function claim limitations and had no meaningful discussion of the prosecution history. The Federal Circuit held that Becton Dickinson "demonstrated utter disregard for the need to obtain competent legal advice" and had used its knowledge of the patent to develop its own commercial model, and therefore willfully infringed. Id. at 1260.

In John Hopkins University v. CellPro, the Federal Circuit analyzed various deficiencies in opinion letters obtained by Cellpro, and affirmed a jury finding of willfulness and the award of treble damages by the district court. 152 F.3d 1342, 1365 (Fed. Cir. 1998). The patents at issue involved purified cell suspensions of stem sells (issued in 1987) as well as monoclonal antibodies (issued in 1990). Cellpro was formed in 1989 and began to sell two machines used to perform cell separation. Cellpro previously knew of the cell suspension patent, and learned of the antibody patent through review of the PTO Official Gazette. Concerned about potential infringement, one of Cellpro's board of directors, who was also the company's legal advisor, sought opinion letters regarding the two patents from a well-known patent firm. An opinion letter was obtained for each patent, and each opinion letter concluded that the patent was invalid and unenforceable. Cellpro used one of the letters to obtain an additional $7.5 million in financing for the company from investors. Id. at 1348.

The Federal Circuit summarized as follows:

> Because Cellpro had knowledge that it might infringe the Civin patents, it had an affirmative duty to exercise due care to avoid infringement. Cellpro attempted to discharge this duty by procuring legal opinions concerning the validity of the Civin patents and its infringement thereof. Our case law makes clear that legal opinions that conclude (even if ultimately incorrectly) that an infringer would not be liable for infringement may insulate an infringer from a charge of willful infringement if such opinions are competent (and followed). A opinion is competent if it is "thorough enough, as combined with other factors, to instill a belief in the infringer that a court might reasonably hold the patent is invalid, not infringed, or unenforceable."

Id. at 1364 (citations omitted). The Federal Circuit held that the opinions at issue did not attempt to link the prior art references cited with the limitations of the patent claims. Further, none of the cited references in the opinion concerning the cell suspension patent actually referenced a cell suspension. The opinion letter for the monoclonal antibody patent also only concluded that some of the claims were not infringed, and "conspicuously omitted" the patent claims asserted in the lawsuit. The allegations in the opinion letters as to inequitable conduct were found to be conclusory and failed to discuss any intent to deceive. The Federal Circuit emphasized that the Cellpro representative that obtained the opinion letters was a former patent examiner, a former partner at the law firm that provided the opinion letters, and was sophisticated in his knowledge of patent law such that the "shortcomings" of the two opinion letters should have been "obvious" to him.[8] The Federal Circuit therefore affirmed the jury finding of willfulness, and the maximum enhanced award of treble damages. Id. at 1364.

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[8] The district court was less kind and concluded that both opinion letters were:

> so obviously deficient, one might expect a juror to conclude that the only value they had to Cellpro in the world outside the courtroom would have been to file them in a drawer until they

> could be used in a cynical effort to try and confuse or mislead what Cellpro, its Board, and counsel must have expected would be an unsophisticated jury.

Id. at 1363.

8. Attorney Fees

35 U.S.C. § 285 provides that the court may award reasonable attorney fees to the prevailing party in "exceptional circumstances." This provision for attorney fees is almost unique to patent law. Pharmacia & Upjohn Co. v. Mylan Pharm. Inc., 182 F.3d 1356, 1359 (Fed. Cir. 1999). The award of attorney fees is committed to the court's discretion. Smithkline Diagnostics, Inc. v. Helena Labs. Corp., 926 F.2d 1161, 1165, n.2 (Fed. Cir. 1991). Willful infringement alone may suffice to support a finding of exceptional circumstances. L.A. Gear, Inc. v. Thom McAn Shoe Co., 988 F.2d 1117, 1128 (Fed. Cir. 1993), *cert. denied*, 510 U.S. 908 (1993). However, a finding of willful infringement does not mandate a determination that a case presents "exceptional circumstances." Cybor Corp. v. FAS Techns., Inc., 138 F.3d 1448, 1461 (Fed. Cir. 1998)(infringer's arguments in litigation as to claim construction were not meritless.) Inequitable conduct before the PTO may also be considered in determining whether a case presents exceptional circumstances. Pharmacia & Upjohn Co., 182 F.3d at 1359. Exceptional circumstances were found to justify the award of attorney fees in the following cases: Serano v. Telular Corp., 111 F.3d 1578, 1585 (Fed. Cir. 1997)(affirming award of attorney fees where infringer's conduct required patentee to re-litigate issues already decided in a prior case concerning the parent patent, and where infringer, after being previously enjoined from selling infringing products, began marketing a mere colorable imitation of the same product); Amsted Indus. Inc. v. Buckeye Steel Casings, 24 F.3d 178, 184 (Fed. Cir. 1994)(finding of willful infringement is sufficient basis for classifying case as exceptional); Goodwall Const. Co. v. Beers Const. Co., 991 F.2d 751, 759 (Fed. Cir. 1993)(finding of willful infringement was sufficient to support an award of attorney fees); Yamanouchi Pharma. Co. v. Danbury Pharm., Inc., 21 F. Supp.2d 366, 378 (S.D.N.Y. 1998)(in addition to finding of willful infringement, district court held that "forcing a plaintiff to doubtless incur considerable unjustified expense to defend an ill-supported claim" favored determination of case as exceptional.).

9. Pre-Judgment Interest

The United States Supreme Court decided in General Motors Corp. v. Devex Corp. that pre-judgment interest is an appropriate element of damages in patent infringement cases. 461 U.S. 648, 656-57 (1983). The Court reasoned that to hold otherwise would be to encourage vexatious litigation, and cautioned that prejudgment interest should only be denied in exceptional circumstances. Id.; see also Sensonics, Inc. v. Aerosonic Corp., 81 F.3d 1566, 1574 (Fed. Cir. 1996); Lummus Indus., Inc. v. D.M. & E. Corp., 862 F.2d 267, 274-75 (Fed. Cir. 1988)(holding that "[t]o deny prejudgment interest based on calculation difficulties alone would be error.").

B. Injunctions

1. Preliminary Injunction

A district court has the discretion to grant a preliminary injunction in patent cases as in any other. H.H. Robertson Co. v. United Steel Deck, Inc., 820 F.2d 384, 387-91 (Fed. Cir. 1987). The movant must establish four factors: "(1) a reasonable likelihood of success on the merits; (2) the irreparable harm if preliminary relief is not granted; (3) the balance of hardships tipping in its favor; and (4) the impact of the injunction on the public sector." Vehicular Techs. Corp. v. Titan Wheel Int'l, Inc., 141 F.3d 1084, 1087-88 (Fed. Cir. 1998)(citing Reebok Int'l Ltd. v. J. Baker, Inc., 32 F.3d 1552, 1555 (Fed. Cir. 1994)); see also Amazon.com, Inc. v. Barnesandnoble.com, Inc., 239 F.3d 1343, 1350 (Fed. Cir. 2001); Hybritech, Inc. v. Abbott Labs., 849 F.2d 1446, 1451 (Fed. Cir. 1988). The patent owner is entitled to a presumption of irreparable harm where a clear showing of patent validity and infringement has been made. Amazon.com, 239 F.2d at 1350; Bell and Howell Document Mgmt. Prods. Co. v. Altek Sys., Inc., 132 F.3d 701, 708 (Fed. Cir. 1997).

In the context of patent infringement, the first factor necessarily requires that the movant show that it will likely prove the defendant infringed its patent, and that its patent is valid and enforceable. Vehicular Techs., Corp., 141 F.3d at 1088 (vacating grant of preliminary injunction by district court where district court erred in interpreting the functions performed by a claim limitation and determining the permissible range of equivalents that could be shown by the patent owner.) As to the second factor, the nature of the patent grant weighs against a finding that monetary damages will fully compensate for future infringement, and § 283 is intended to preserve the legal interests of the parties. Hybritech, 849 F.2d at 1446. It is not required that the court find that the balance of hardships is greatly in favor of the moving party in order to grant the preliminary injunction. Id. The last factor requires a balancing between the public interest in enforcing valid patents versus a specific critical interest impacted by granting the preliminary relief. Id. at 1458 (affirming grant of preliminary injunction prohibiting Abbot Labs from marketing various products allegedly infringing a patent on assays using monoclonal antibodies, but which excluded from the injunction Abbot Lab's cancer test kits and hepatitis test kits based on the determination that the public interest was best served by the availability of these test kits.).

2. Permanent Injunction

Upon a finding of infringement, a district court has authority to enjoin further infringing activities. John Hopkins University v. CellPro, 152 F.3d 1342, 1365 (Fed. Cir. 1998). Title 35, section 283 provides that the district court, "may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by the patent, on such terms as the court deems reasonable." One court extended this authority to prohibiting the infringer from making machines in Germany for use in the United States. Spindelfabrik Suessen-Schurr v. Schubert & Salzer Maschinenfabrik, 903 F.2d 1568, 1578 (Fed. Cir. 1990). However, this authority is not unlimited, as by the terms of the statute, the injunction must be restricted to preventing violations of a United States patent right. CellPro, 152 F.3d at 1367 (vacating injunction by district court that ordered cell suspensions manufactured by infringer prior to issuance of a patent and subsequently exported to Canada be returned to the United States and destroyed). A determination of infringement is a necessary predicate to the issuance of a permanent injunction. Eli Lilly and Co. v. Medtronic, Inc., 915 F.2d 670, 674 (Fed. Cir. 1990). In compliance with FRCP 65(d), the injunction must have specific terms and a description "in reasonable detail [of] the acts sought to be restrained." Signteck USA. Ltd. v. Vutek, Inc., 174 F.3d 1352, 1359 (Fed. Cir. 1999)(citing Additive Controls & Measurement Sys. Inc. v. Flowdata, Inc., 986 F.2d 476, 479 (Fed. Cir. 1993)).