Harmonizing Prosecution History Estoppel and the Doctrine of Equivalents in Patent Infringement Actions

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I. INTRODUCTION

II. BACKGROUND: RELEVANT PATENT LAW AND PRACTICE PRINCIPLES

III. THE DOCTRINES AT ISSUE IN FESTO
   A. Prosecution History Estoppel
   B. The Doctrine of Equivalents

IV. THE "FLEXIBLE BAR"

V. THE "COMPLETE BAR"

VI. WARNER-JENKINSON CO. V. HILTON DAVIS CHEMICAL CO.

VII. THE DOCTRINE OF EQUIVALENTS HAS NOT "TAKEN ON A LIFE OF ITS OWN"
   A. 1996 Federal Circuit Cases Where the Court Addressed the Doctrine of Equivalents
   B. 1995 Federal Circuit Cases Where the Court Addressed the Doctrine of Equivalents
   C. The 1995 and 1996 Equivalents Cases Fit the Same Overall Pattern That the Federal Circuit Has Followed Since Its Inception

VIII. THE "FLEXIBLE BAR" IS NOT "UNWORKABLE"

IX. THE FESTO DECISION
   A. Supreme Court Precedent
   B. Federal Circuit Precedent

X. CONCLUSION

XI. ADDENDUM: THE SUPREME COURT DECIDES FESTO

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I. INTRODUCTION

The patent law doctrines of prosecution history estoppel\(^1\) and equivalents were reexamined by the United States Court of Appeals for the Federal District in Festo Corp. v. Shoketsu Kinzoku Kabushiki Co.\(^2\) (Festo). The case involved issues relating to the scope of invention that should be afforded to patents in patent infringement actions.\(^3\) This decision threatened to shift dramatically and unjustifiably the balance struck by patent law and practice between patentees and alleged infringers in favor of infringers regarding the interpretation of patents. That is, the Festo decision, by expanding the applicability of prosecution history estoppel in patent infringement actions, substantially curtailed a patentee’s bases for obtaining a judicial finding of infringement under the doctrine of equivalents.\(^4\)

In Festo, the Federal Circuit departed from United States Supreme Court precedent and its own longstanding and well-established practice of using a “flexible bar” approach to determine whether a patentee was

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1. This doctrine is also known as file wrapper estoppel. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 30 (1997).
3. See Festo Corp., 234 F.3d at 563.
4. See, e.g., Alan P. Klein, The Doctrine of Equivalents: Where It Is Now, What It Is, 83 J. PAT. & TRADEMARK OFF. SOC’Y 514, 514 (2001) (“It is premature to say that the doctrine of equivalents is dead, but its use has certainly been curtailed.”). The Festo decision was “unnecessarily extreme” and,

in effect, the Festo decision may have transformed prosecution history estoppel into an exception that swallowing the rule. If not reversed by the United States Supreme Court or obviated by Congress, the Federal Circuit’s Festo decision will have far-reaching implications, not only upon the way patent claims are litigated, but also upon the process by which patents are obtained.

William M. Atkinson et al., Was Festo Really Necessary?, 83 J. PAT. & TRADEMARK OFF. SOC’Y 111, 111-12 (Feb. 2001); Supreme Court Will Review Decision That Shook up Patent Bar, 18 No. 21 ANDREWS COMPUTER & ONLINE INDUS. LITIG. REP. 11 (July 3, 2001); Federal Circuit Severely Restricts Use of Doctrine of Equivalents, 2 NO. 3 ANDREWS E-BUS. L. BULL. 3 (Jan. 2001) (“In a sudden departure from nearly 20 years of its own precedents, the U.S. Court of Appeals for the Federal Circuit has severely restricted the circumstances under which patent owners can rely on the doctrine of equivalents when enforcing their patents against alleged infringers.”).
estopped under the doctrine of prosecution history estoppel from
asserting infringement under the doctrine of equivalents. The Festo
court adopted a much more stringent “complete bar” approach to
determine whether prosecution history estoppel prevents a patentee from
asserting equivalents infringement. This “complete bar” approach
substantially limits a patentee’s ability to obtain a finding of infringement
under the doctrine of equivalents.

This Article proposes that the Federal Circuit was not justified in
abandoning its own precedent and Supreme Court precedent when it
discarded the “flexible bar” approach in favor of the “complete bar”
approach. I propose that Supreme Court and Federal Circuit precedent
compel the conclusion that what the Festo court has denominated as the
“complete bar” approach is just an application of the “flexible bar”
approach to a particular fact pattern. The Festo decision should be
reversed by the Supreme Court and the “flexible bar” approach to
prosecution history estoppel should be reinstated.

As a matter of background and introduction, I first discuss the basic
principles of patent law and practice, prosecution history estoppel, the
doctrine of equivalents, the concepts of “flexible bar” and “complete
bar,” the 1997 Supreme Court decision in Warner-Jenkinson Co. v.
Hilton Davis Chemical Co., which is relevant to the issue of the
interrelationship between both doctrines, and the Festo decision. I then
discuss the applicable precedent to the Festo decision, including the line
of cases in which the Federal Circuit applied the “flexible bar” approach
and the line of cases in which it allegedly applied the “complete bar”
approach.

I conclude that the Court of Appeals for the Federal Circuit had
little or no basis for abandoning the “flexible bar” approach in favor of a
nonexistent “complete bar” approach when making prosecution history

5. See, e.g., Corcoran, supra note 2, at 173 (“With this answer, the Federal Circuit
abrogates most of its own case law with regard to the doctrine of equivalents and conflicts with
Supreme Court precedent.”); Atkinson et al., supra note 4, at 130-34.
6. See 234 F.3d at 569.
7. See Corcoran, supra note 2, at 176 (“Contrary to the Federal Circuit’s decision in
Festo VI, all equivalents should not be lost whenever prosecution history estoppel applies because
such a rule has been expressly rejected by the Federal Circuit in other cases and repudiates the
essence of stare decisis.”).
8. This Article was written before the Supreme Court decided the case. The Supreme
Court decided the case on May 28, 2002. Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki
Co., 122 S. Ct. 1831 (2002). The Court vacated, overruled in part and remanded the Federal
Circuit’s decision. A brief discussion of the Supreme Court’s decision is found infra in the
Addendum after the Conclusion of this Article.
estoppel determinations. The balance that has existed for many years between prosecution history estoppel and the doctrine of equivalents has served the United States patent system well and should not be altered.10 The Federal Circuit provided no sensible reason to alter this balance.

II. BACKGROUND: RELEVANT PATENT LAW AND PRACTICE PRINCIPLES

A patent is a grant of certain rights by the federal government to the inventor of a new, useful, and nonobvious invention.11 The authority of the federal government to grant patents stems from the Constitution, which states that “[t]he Congress shall have Power . . . [t]o promote the Progress of Science and useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their . . . Discoveries.”12 The United States Patent and Trademark Office (PTO) is the government agency responsible for the issuance of patents.

The rights conferred to the patentee are exclusionary rights, and include the right to exclude others from making, using, selling, offering for sale, or importing the patented invention during the term of the patent.13 The term of a patent begins with the issuance of the patent by the PTO and extends to twenty years from the date of the filing of the patent application with the PTO.14

The process by which an inventor obtains a patent is as follows.15 The inventor initiates the process by filing a patent application with the PTO. The patent application is a document that includes an abstract of the invention, drawings illustrating the invention, a specification or description of the invention, and one or more claims “particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.”16 Claims are analogous to a land deed

10. Atkinson et al., supra note 4, at 134, 136. “[T]he Federal Circuit could have adopted less drastic rules for the clarification of prosecution history estoppel.” Id. Furthermore, “the Festo rule changes policy that for decades has favored the innovator over would-be copyists. Festo arbitrarily enables competitors to appropriate technology that may not even have existed in the public domain when the subject patent was filed.” Id. The latter statement refers to the rule that a patent may encompass, under the doctrine of equivalents, technologies that did not exist at the time the patent issued.
14. Id. § 154(a)(2).
in that they define the “metes and bounds” of the invention, or the scope of the invention.  

The specification is a written description of the invention which includes “the manner and process” of making and using the invention “in such full, clear, concise, and exact terms as to enable any person skilled in the art to which [the invention] pertains . . . to make and use” the invention. The specification also “shall set forth the best mode contemplated by the inventor of carrying out his invention.” Thus, in addition to the requirements that the invention must be new, useful, and nonobvious, the patent statute requires that the inventor include in the patent application a written description of the invention that enables others to make and use the invention and that sets forth the best mode to carry out the invention.

Patent applications received by the PTO are assigned to a patent examiner, who determines whether the patent application satisfies the statutory requirements of patentability set forth above. If the patent examiner determines that the patent application does not comply with one or more of the patentability requirements, the patent examiner rejects the patent application and notifies the inventor (or his attorney) of the rejection. The inventor (or his attorney) may then respond to the rejection by traversing the rejection, i.e., by attempting to explain to the examiner why the examiner erred in rejecting the patent application, or by amending the patent application to eliminate the basis of the examiner’s rejection. This process between the patent examiner and the inventor continues until the PTO ultimately rejects the patent application or the patent application is allowed to issue as a patent.

Amendments to patent applications—specifically, amendments that narrow the scope of the invention—are the basis for the doctrine of prosecution history estoppel. This doctrine is invoked in patent infringement actions by alleged infringers as a defense to a claim of infringement under the doctrine of equivalents. Discussed below in more detail, the doctrine of equivalents is an equitable doctrine invoked by

19. Id.
20. Id.
22. Id. at 1021.
23. Id.
24. Id.
patentees in patent infringement actions to procure a finding of
infringement when the device accused of infringement does not literally
infringe the asserted patent claims.

III. THE DOCTRINES AT ISSUE IN FESTO

A. Prosecution History Estoppel

“The doctrine of prosecution history estoppel is ‘an equitable tool
for determining the permissible scope of patent claims’ as against a
specific structure accused of infringement.” 25 The prosecution history
estoppel doctrine serves as a limitation to infringement under the
doctrine of equivalents when there is no literal infringement. 26 “The
essence of prosecution history estoppel is that a patentee should not be
able to obtain, through the doctrine of equivalents, coverage of subject
matter that was relinquished during prosecution to procure issuance of
the patent.” 27 “Prosecution history estoppel provides a legal limitation on
the application of the doctrine of equivalents by excluding from the range
of equivalents subject matter surrendered during prosecution of the
application for the patent.” 28

The doctrine of prosecution history estoppel is a judicially created
doctrine that is supported by statutory and doctrinal principles. One
principle, as set forth above, is that the specification of a patent “shall
conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his
invention.” 29 These statutory requirements for drafting claims serve to
give the public notice of that which the patentee claims as his patented
invention. 30

Another principle applicable to the doctrine of prosecution history
estoppel is that claims should be interpreted in light of, *inter alia*, the

25. Mannesmann Demag Corp. v. Engineered Metal Prods., 793 F.2d 1279, 1284 (Fed.
Cir. 1986) (quoting Builders Concrete, Inc. v. Bremerton Concrete Prods. Co., 757 F.2d 255, 258
(Fed. Cir. 1985)).
27. Hoganas AB v. Dresser Indus., Inc., 9 F.3d 948, 951-52 (Fed. Cir. 1993) (citation
omitted).
28. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1460 (Fed. Cir. 1998) (citation
omitted).
notable core tenet of patent law is “that the patentee ‘particularly point[ ] out and distinctly
claim[ ] the subject matter which the applicant regards as his invention, 35 U.S.C. § 112, ¶ 2
(1994), and the function of patent claims to provide notice to competitors regarding the scope of
the patent grant”).
prosecution history. If the prosecution history evidences that the patentee relinquished subject matter during prosecution of the patent application, the doctrine of prosecution history estoppel precludes the patentee from reclaiming the relinquished subject matter in an infringement action. “Thus, the prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.”

B. The Doctrine of Equivalents

The modern contours of the doctrine of equivalents were set forth in Graver Tank & Manufacturing Co. v. Linde Air Products Co. The doctrine may be applied to find that an accused infringer infringes a patent claim in fact when there is no literal infringement, i.e., when the accused thing does not fall clearly within the asserted patent claim. Courts apply this doctrine when the difference between the patented thing and the accused thing is insubstantial. The doctrine curtails circumvention of patent rights by accused infringers that make things that are insubstantially different from patented inventions.

In Graver Tank, the Court explained that the doctrine arose to address situations where a patented thing that “does not copy every literal detail” nonetheless imitates a patented invention. The Court stated that such a limitation on infringement “would leave room for—indeed encourage—the unscrupulous copyist to make unimportant and insubstantial changes and substitutions in the patent which, though add nothing, would be enough to take the copied matter outside the claim, and hence outside the reach of law.” The doctrine of equivalents is applied to find infringement in such situations to protect the inventor,

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31. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996) (“It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history.”). The prosecution history is the document file of the correspondence between the patent applicant and the PTO.


35. Id. at 608-09.

36. Id.

37. Id.
whose patent would otherwise be “at the mercy of verbalism,” and the patent’s substance would be subordinated to form.\(^{38}\)

The essence of the doctrine of equivalents is that “one may not practice a fraud on a patent.”\(^{39}\) However, the Supreme Court has made it clear that fraud in this context does not require the element of intent.\(^{40}\)

The “essential inquiry” that should be made to determine whether the doctrine of equivalents applies is: “Does the accused product or process contain elements identical or equivalent to each claimed element of the patented invention?”\(^{41}\) Courts usually apply one of two tests to determine whether the accused thing infringes under the doctrine of equivalents.\(^{42}\) One test is the function-way-result test, in which the patented thing infringes under the doctrine of equivalents if it “performs substantially the same function in substantially the same way to obtain the same result.”\(^{43}\) Another test is whether there are “insubstantial differences” between the patented thing and the accused thing.\(^{44}\) In \textit{Warner-Jenkinson}, the Court held that whichever test was selected as more suitable to a particular case—function-way-result or insubstantial differences—the test should be applied to each element of the asserted claim.\(^{45}\)

IV. \textbf{THE “FLEXIBLE BAR”}

The “flexible bar” approach to prosecution history estoppel means that when a patent claim element that was amended (e.g., narrowed) during prosecution is asserted in infringement litigation, the scope of that amended claim \textit{may} include equivalents of that element when determining whether the claim is infringed under the doctrine of equivalents. The equivalents, if any, that the claim element may be construed to encompass cannot include the subject matter relinquished by the patentee when he amended (e.g., narrowed) the claim element.

\(^{38}\) \textit{Id.}  
\(^{39}\) \textit{Id.} at 608.  
\(^{41}\) \textit{Id.} at 40.  
\(^{42}\) \textit{See id.} at 39.  
\(^{44}\) \textit{Warner-Jenkinson}, 520 U.S. at 39.  
\(^{45}\) \textit{Id.} at 40. For further explanation of the doctrine of equivalents, see, e.g., Atkinson et al., \textit{supra} note 4, at 114-16.
However, equivalents of the amended claim element that do not encompass the subject matter relinquished during prosecution may be considered by the court in determining whether the patent claim is infringed under the doctrine of equivalents.

The “flexible bar” concept may be illustrated with the following graphic example. Say a patent claim in a patent application is bounded by elements A, B, D, and C:

During prosecution, this patent claim is amended by narrowing the scope of element B to element B’ as follows:

Thus, during prosecution the patent applicant relinquished the subject matter bounded by elements A, B, D, and B’ (the shaded area). The elements of the allowed patent claim are bounded by A, B’, D and C. In a patent infringement action, prosecution history estoppel precludes the patentee from asserting that the scope of the claims includes any portion of the shaded area when asserting that there is infringement under the doctrine of equivalents. However, under the “flexible bar” approach, the patentee may assert equivalents of element B’ that do not encompass the shaded relinquished subject matter.

46. Id.
47. This graphic is a simplification of the concept of the scope, or “metes and bounds” of a patent claim. Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., 868 F.2d 1251, 1257 (Fed. Cir. 1989). The scope of patent claims should be thought of as multidimensional. Nevertheless, the graphic assists in explaining the concepts at hand.
48. Corcoran, supra note 2, at 174 (“The Supreme Court also recognized that although the available range of equivalents may be narrowed, a patentee does not necessarily surrender all equivalents.”).
The *Festo* decision states that the “flexible bar” was first addressed by the Federal Circuit in *Hughes Aircraft Co. v. United States.* There, the Federal Circuit explained and rejected the “complete bar” approach and endorsed the “flexible bar” approach to prosecution history estoppel:

Some courts have expressed the view that virtually any amendment of the claims creates a “file wrapper estoppel” effective to bar all resort to the doctrine of equivalents, and to confine patentee “strictly to the letter of the limited claims granted [i.e., “complete bar”].” *Nationwide Chemical Corp. v. Wright,* 584 F.2d 714, 718-19 (5th Cir. 1978); *Ekco Products Co. v. Chicago Metallic Manufacturing Co.,* 347 F.2d 453, 455 (7th Cir. 1965). We, as has the Supreme Court, reject that view as a wooden application of estoppel, negating entirely the doctrine of equivalents and limiting determination of the infringement issue to consideration of literal infringement alone. . . . Amendment of claims is a common practice in prosecution of patent applications. No reason or warrant exists for limiting application of the doctrine of equivalents to those comparatively few claims allowed exactly as originally filed and never amended. Amendments may be of different types and may serve different functions. Depending on the nature and purpose of an amendment, it may have a limiting effect within a spectrum ranging from great to small to zero [i.e., “flexible bar”]. The effect may or may not be fatal to application of a range of equivalents broad enough to encompass a particular accused product. It is not fatal to application of the doctrine itself. 50

Applying these principles to the figures above, it may be that element B’ limits the scope of the claim greatly because there are no equivalents to element B’ that do not encompass the shaded relinquished subject matter, or it may be that the limitation imposed by element B’ is small because there are equivalents to element B’ that do not encompass the shaded relinquished subject matter.

V. THE “COMPLETE BAR”

As stated above, the Federal Circuit rejected the concept of a “complete bar” approach shortly after its creation. 51

The rehashed concept of the “complete bar” to prosecution history estoppel, as articulated by the Federal Circuit nearly twenty years later in *Festo,* is that “[w]hen a claim amendment creates prosecution history

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51. *See id.*
estoppel with regard to a claim element, there is no range of equivalents available for the amended claim element. Application of the doctrine of equivalents to the claim element is completely barred (a ‘complete bar’).\textsuperscript{52}

Referring to the figures above, the “complete bar” means that the court will not consider any range of equivalents that might be available for claim element B’ and, therefore, application of the doctrine of equivalents to this element is completely barred. As discussed above, the Federal Circuit in \textit{Hughes} declined the application of a “complete bar” approach, rejecting the view that “virtually any amendment of the claims creates a ‘file wrapper estoppel’ effective to bar all resort to the doctrine of equivalents.”\textsuperscript{53}

Notwithstanding this unequivocal rejection of the “complete bar” in \textit{Hughes}, the Federal Circuit in \textit{Festo}, in hindsight, traced its initial alleged application of the “complete bar” to \textit{Kinzenbaw v. Deere & Co.},\textsuperscript{54} a case decided shortly after \textit{Hughes}.\textsuperscript{55} However, \textit{Kinzenbaw} does not stand for the proposition that the “complete bar” should be applied in doctrine of equivalents cases. Rather, \textit{Kinzenbaw} illustrates a fact pattern where the limiting effect of the amendment to the claim falls within the “great” end of the spectrum referred to by the Court in \textit{Hughes}.\textsuperscript{56} Similarly, the \textit{Kinzenbaw} progeny of cases can be analyzed by these same “flexible bar” principles, as illustrated below.

VI. \textbf{WARNER-JENKINSON CO. v. HILTON DAVIS CHEMICAL CO.}

In \textit{Warner-Jenkinson}, decided merely three years prior to the Federal Circuit’s \textit{Festo} decision, the Supreme Court discussed the relationship between the doctrine of prosecution history estoppel and the doctrine of equivalents.\textsuperscript{57} There, the Supreme Court refused to endorse the “complete bar” approach advanced by the petitioner, declining to hold that prosecution history estoppel applies when amendments are made to a patent application regardless of the reason for the amendment (i.e., the “complete bar”).\textsuperscript{58}

According to petitioner [the alleged infringer], any surrender of subject matter during patent prosecution, regardless of the reason for such

\begin{footnotes}
52. \textit{Festo}, 234 F.3d at 569.
53. \textit{Hughes}, 717 F.2d at 1363.
54. 741 F.2d 383 (Fed. Cir. 1984).
55. \textit{Festo}, 234 F.3d at 573.
56. \textit{Hughes}, 717 F.2d at 1363.
58. \textit{See id. at 30.}
\end{footnotes}
surrender, precludes recapturing any part of that subject matter, even if it is equivalent to the matter expressly claimed. . . . Any inquiry into the reasons for a surrender, petitioner claims, would undermine the public’s right to clear notice of the scope of the patent as embodied in the patent file.

We can readily agree with petitioner that *Graver Tank* did not dispose of prosecution history estoppel as a legal limitation on the doctrine of equivalents. But petitioner reaches too far in arguing that the reason for an amendment during patent prosecution *is irrelevant* to any subsequent estoppel. In each of our cases cited by petitioner and by the dissent below, *prosecution history estoppel was tied to amendments made to avoid the prior art, or otherwise to address a specific concern—such as obviousness—that arguably would have rendered the claimed subject matter unpatentable.*

The *Warner-Jenkinson* Court concluded that “[o]ur prior cases have consistently applied prosecution history estoppel only where claims have been amended for a limited set of reasons, and we see no substantial cause for requiring a more rigid rule invoking an estoppel regardless of the reasons for a change.” The Court also stated that “if the patent holder demonstrates that an amendment required during prosecution had a purpose unrelated to patentability, a court must consider that purpose in order to decide whether an estoppel is precluded.”

The *Warner-Jenkinson* Court did impose a new requirement in prosecution history estoppel cases. The Court held that when the record contained no reason for an amendment during patent prosecution, “the Court should presume that the patent applicant had a substantial reason related to patentability for including the limiting element added by amendment.” The Court found that “[i]n those circumstances, prosecution history estoppel would bar the application of the doctrine of equivalents as to that element.” This presumption is subject to rebuttal.

The prosecution history estoppel situation that arose in *Warner-Jenkinson* illustrates the flexibility that the Supreme Court afforded the application of prosecution history estoppel. The claim at issue in *Warner-Jenkinson* pertained to a dye purification process involving membrane having “a pH from approximately 6.0 to 9.0.” The claim at

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59. *Id.* at 30-31 (emphasis added).
60. *Id.* at 32 (footnote omitted) (emphasis added).
61. *Id.* at 40-41 (emphasis added).
62. *Id.* at 33.
63. *Id.*
issue did not contain this pH limitation when it was originally filed in the PTO. The pH limitation was added during prosecution of the patent application. There was no dispute between the parties that the pH upper limit of 9.0 was added to the claim to distinguish prior art and hence overcome a prior art rejection. The prosecution history was silent on why the pH lower limit of 6.0 was added to the claim, and the parties did not agree on a reason for this amendment.

The lower limit pH of the allegedly infringing process in Warner-Jenkinson was 5.0. Petitioner Warner-Jenkinson argued that the patentee should be estopped from asserting infringement under the doctrine of equivalents by alleging that the lower-limit pH of the infringing process (5.0) was equivalent to the lower-limit pH of the claim at issue (6.0). Petitioner argued that the reason for an amendment to a claim during patent prosecution was irrelevant, and that “any surrender of subject matter during patent prosecution . . . preclude[d] recapturing any part of that subject matter.”

The Court, however, rejected Warner-Jenkinson’s argument that prosecution history estoppel applies regardless of the reason the patentee had for relinquishing subject matter during prosecution. The Court stated that there were a variety of reasons “why the PTO may request a change in claim language.” The Court also stated that “[w]here the reason for the change was not related to avoiding the prior art, the change may introduce a new element, but it does not necessarily preclude infringement by equivalents of that element.”

The resolution of the prosecution history estoppel issue in Warner-Jenkinson further illustrates the Supreme Court’s intention that flexibility should be the guiding principle for courts deciding prosecution history estoppel issues. The Supreme Court stated:

Because respondent has not proffered in this Court a reason for the addition of a lower pH limit, it is impossible to tell whether the reason for that addition could properly avoid an estoppel. Whether a reason in fact exists, but simply was not adequately developed, we cannot say. On
remand, the Federal Circuit can consider whether reasons for that portion of the amendment were offered or not and whether further opportunity to establish such reasons would be proper."

This holding is not inconsistent with the Federal Circuit’s practice prior to Festo when faced with an amendment to a patent claim for which the evidence of record provided no explanation.

The Warner-Jenkinson Court also addressed doctrine of equivalents principles. Hilton-Davis, the patentee, accused Warner-Jenkinson of infringing its patent under the doctrine of equivalents. The Court explained that “[u]nder this doctrine, a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is ‘equivalence’ between the elements of the accused product or process and the claimed elements of the patented invention.” The Court, quoting Graver-Tank, the seminal case on doctrine of equivalents, stated:

What constitutes equivalency must be determined against the context of the patent, the prior art, and the particular circumstances of the case. Equivalence, in the patent law, is not the prisoner of a formula and is not an absolute to be considered in a vacuum. It does not require complete identity for every purpose and in every respect. In determining equivalents, things equal to the same thing may not be equal to each other and, by the same token, things for most purposes different may sometimes be equivalents.

The Warner-Jenkinson Court addressed and dismissed Warner-Jenkinson’s argument that the doctrine of equivalents did not survive the 1952 revisions to the Patent Act. The Court, however, expressed concern that “the doctrine of equivalents, as it has come to be applied since Graver Tank, has taken on a life of its own, unbounded by the patent claims.” The Supreme Court provided no foundation or precedent for its statement in Warner-Jenkinson that the doctrine of equivalents “has taken on a life of its own.”

76. Id. at 34.
77. See id. at 23.
78. Id. at 21 (citation omitted).
80. Id. at 25-28.
81. Id. at 28.
82. Id. The Supreme Court adopted an “all elements rule” to limit broad application of the doctrine of equivalents. “Each element contained in a patent claim is deemed material to defining the scope of the patented invention, and thus the doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole.” Id. at 29; see Corcoran, supra note 2, at 164 (“In Warner-Jenkinson, the Supreme Court effectively adopted the ‘all
The *Festo* court found support on this statement to justify its decision to implement the “complete bar” approach and discard the “flexible bar” approach:

Finally, we see no overriding benefit to the flexible bar approach. Although a flexible bar affords the patentee more protection under the doctrine of equivalents, we do not believe that the benefit outweighs the costs of uncertainty. The Supreme Court noted in *Warner-Jenkinson* that the doctrine of equivalents has “taken on a life of its own, unbounded by the patent claims.” *Warner-Jenkinson*, 520 U.S. at 28-29, 117 S. Ct. 1040. A complete bar reins in the doctrine of equivalents, making claim scope more discernible and preserving the notice function of claims.83

VII. THE DOCTRINE OF EQUIVALENTS HAS NOT “TAKEN ON A LIFE OF ITS OWN”

A. 1996 Federal Circuit Cases Where the Court Addressed the Doctrine of Equivalents

A review of the published decisions of the Federal Circuit involving doctrine of equivalents decisions leading up to the *Warner-Jenkinson* decision shows that the Supreme Court’s assumption that the doctrine of equivalents has “taken on a life of its own” is ill-founded. In 1996, the year *Warner-Jenkinson* was argued before the Supreme Court, the Federal Circuit published nineteen decisions in which substantive issues of the doctrine of equivalents were decided. In fifteen of these decisions, the Federal Circuit held that there was no infringement under the doctrine of equivalents.84 In those cases, the Federal Circuit repeatedly adhered to elements rule.” (footnote omitted)). It is questionable whether the Supreme Court should have adopted such a rule when, as discussed in Part VII *infra*, it does not appear that the doctrine of equivalents had “taken on a life of its own.” *Warner-Jenkinson*, 520 U.S. at 28.


the two tests discussed above—function-way-result or insubstantial differences—to determine infringement under the doctrine of equivalents. Hence, none of these cases suggest that the doctrine of equivalents “took on a life of its own.”

In the 1996 cases where the Federal Circuit found that there was no infringement under the doctrine of equivalents, the court also repeatedly stressed limitations traditionally invoked by courts when applying the doctrine of equivalents. Thus, in *Institufom Technologies, Inc. v. Cat Contracting, Inc.*, the Federal Circuit stated that “it is incorrect to refer to a claim as being expanded or enlarged when infringement is found under the doctrine of equivalents.” In *Wiener v. NEC Electronics, Inc.*, the Federal Circuit stated that “[t]he doctrine of equivalents is not a license to ignore claim limitations.” In *General American Transportation Corp. v. Cryo-Transportation, Inc.*, the court stated that “the doctrine may not be used to expand the scope of the patentee’s right to exclude so as to encompass the prior art,” and that “[t]here can be no infringement as a matter of law if a claim limitation is totally missing from the accused device.”

Similarly, in *Texas Instruments Inc. v. Cypress Semiconductor Corp.*, the court stated that the evidentiary requirements of the doctrine of equivalents “assure that the fact-finder does not, ‘under the guise of applying the doctrine of equivalents, erase a plethora of meaningful structural and functional limitations of the claim on which the public is

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85. See sources cited supra note 84.
86. 99 F.3d at 1109.
87. 102 F.3d at 541 (quoting Dolly, Inc. v. Spalding & Evenflos Cos., 16 F.3d 394, 398 (Fed. Cir. 1994)).
88. 93 F.3d at 771 (citation omitted).
entitled to rely in avoiding infringement.” In *Maxwell v. J. Baker, Inc.*, the Federal Circuit applied the rule that “[a] patentee may not narrowly claim his invention and then, in the course of an infringement suit, argue that the doctrine of equivalents should permit a finding of infringement because the specification discloses the equivalents.” In *Zygo Corp. v. Wyko Corp.*, the Federal Circuit stated:

> It is well settled that each element of a claim is material and essential, and that in order for a court to find infringement, the plaintiff must show the presence of every element or its substantial equivalent in the accused device. . . . Infringement may not be found under the doctrine of equivalents if a limitation is missing, that is, not replaced with an equivalent substituent.

In *Zygo*, the Federal Circuit evidenced that it was applying the function-way-result test stringently when it stated: “[t]hat the substituent performs the same general function to achieve the same result as the required element also does not establish their equivalency. The result must be achieved in substantially the same way.”

In *Roton Barrier, Inc. v. Stanley Works*, the Federal Circuit was even more precise in stating the standard to determine equivalents infringement:

> In *Hilton Davis*, this court, in reviewing the doctrine of equivalents, stated that the traditional function, way, result tripartite test is not “the” test for infringement under the doctrine of equivalents. *Id.* at 1518, 35 USPQ2d at 1645. Rather, a finding of infringement under the doctrine “requires proof of insubstantial differences between the claimed and accused products or processes.” *Id.* at 1521-22, 35 USPQ2d at 1648. Thus, satisfaction of the tripartite test may not end the infringement inquiry. *See Sofamor Danek Group v. DePuy-Motec*, 74 F.3d 1216, 1221-22, 37 USPQ2d 1529 (Fed. Cir. 1996) (“Evidence beyond function, way, and result informs application of the doctrine, which focuses on the substantiality of changes from the claims in the accused device.”). “[E]vidence of copying or designing around, may also inform the test for infringement under the doctrine.” *Hilton Davis*, 62 F.3d at 1522, 35 USPQ2d at 1648.

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89. 90 F.3d at 1567 (quoting Pennwalt Corp. v. Durand-Wayland, Inc., 833 F.2d 931, 935 (Fed. Cir. 1987)).
90. 86 F.3d 1098, 1107 (Fed. Cir. 1996).
91. 79 F.3d 1563, 1568 (Fed. Cir. 1996) (quoting Lemelson v. United States, 752 F.2d 1538, 1551 (Fed. Cir. 1985)).
92. *Id.* at 1569.
93. 79 F.3d 1112, 1126 (Fed. Cir. 1996).
In *Athletic Alternatives, Inc. v. Prince Manufacturing, Inc.*, where the Federal Circuit affirmed a summary judgment of noninfringement under the doctrine of equivalents, the court stated:

As we have often observed, however, the doctrine of equivalents is not a license to ignore or “erase . . . structural and functional limitations of the claim,” limitations “on which the public is entitled to rely in avoiding infringement.” *Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*, 822 F.2d 1528, 1532, 3 USPQ2d 1321, 1324 (Fed. Cir. 1987). Liability for infringement thus requires, without exception, that an accused product contain each limitation or its equivalent. *Dolly, Inc. v. Spalding & Evenflo Cos.*, 16 F.3d 394, 398, 29 USPQ2d 1767, 1769 (Fed. Cir. 1994); *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 935, 4 USPQ2d 1737, 1739 (Fed. Cir. 1987) (en banc), cert. denied, 485 U.S. 961, 108 S. Ct. 1226, 99 L. Ed. 2d 426, 485 U.S. 1009, 108 S. Ct. 1474, 99 L. Ed. 2d 703 (1988). Two additional principles further circumscribe the doctrine’s sweep: it cannot be used to protect subject matter in, or obvious in light of, the prior art, *Wilson Sporting Goods Co. v. David Geoffrey & Assoc.*, 904 F.2d 677, 684, 14 USPQ2d 1942, 1948 (Fed. Cir.), cert. denied, 498 U.S. 992, 111 S. Ct. 537, 112 L. Ed. 2d 547 (1990), nor can it be used to recapture subject matter that was relinquished during prosecution of the patent, *Hoganas AB*, 9 F.3d at 951-52, 28 USPQ2d at 1939.94

Thus, the above cases illustrate not only that the doctrine of equivalents has not “taken on a life of its own,” but also that the Federal Circuit has kept this doctrine quite circumscribed and limited.

Continuing with the 1996 Federal Circuit cases, the court made substantive findings or held in only five cases that year that there was, or could be, infringement under the doctrine of equivalents. In these cases, the court also circumscribed itself to the traditional tests for determining whether there was infringement under the doctrine of equivalents. Thus, in *Litton Systems, Inc. v. Honeywell, Inc.*, the Federal Circuit applied both the function-way-result and insubstantial differences tests to find equivalents infringement.95 In *Zygo Corp. v. Wyko Corp.*, where the court reversed the district court’s finding of equivalents infringement as to a second device, the court applied the function-way-result test in affirming that there was equivalents infringement by the original device.96 In *National Presto Industries, Inc. v. West Bend Co.*, where the Federal Circuit affirmed a finding of infringement under the doctrine of equivalents, the court found no error in the district court’s instruction to

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94. 73 F.3d 1573, 1581-82 (Fed. Cir. 1996) (footnote omitted).
96. 79 F.3d 1563, 1569 (Fed. Cir. 1996).
the jury “to compare each element in the claims with the corresponding component of the accused device.” This test is expressly approved of in *Warner-Jenkinson*:

> Each element contained in a patent claim is deemed material to defining the scope of the patented invention, and thus the doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole. It is important to ensure that the application of the doctrine, even as to an individual element, is not allowed such broad play as to effectively eliminate that element in its entirety. So long as the doctrine of equivalents does not encroach beyond the limits just described, or beyond related limits to be discussed [elsewhere], we are confident that the doctrine will not vitiate the central functions of the patent claims themselves.⁹⁷

In *Modine Manufacturing Co. v. United States International Trade Commission*, the Federal Circuit vacated a holding that the doctrine of equivalents did not apply and remanded “for findings in accordance with the doctrine of equivalents.” The court reaffirmed that “[t]he controlling criterion . . . is whether the accused device is substantially the same as the claimed invention.”⁹⁹ Similarly, in *Lifescan, Inc. v. Home Diagnostics, Inc.*, the Federal Circuit reversed a grant of summary judgment because “[o]n Lifescan’s proffered evidence, a reasonable trier of fact could have found that the function/way/result test of equivalency is satisfied.”¹⁰¹

In summary, all these 1996 decisions—those where equivalents infringement was found and those where it was not found—illustrate that the Federal Circuit routinely applied the traditional function-way-result and insubstantial differences tests to determine whether equivalents infringement exists. Furthermore, the Federal Circuit has applied substantial doctrinal principles that rein in the application of the doctrine of equivalents. Under these constraints, it is not surprising that the doctrine of equivalents is applied successfully in a minority of cases, as was the case in 1996, where out of nineteen cases in which the doctrine was asserted, the Federal Circuit found or held no equivalents infringement in fifteen cases and found or held that there was, or could be, equivalents infringement in five cases.¹⁰² The 1996 Federal Circuit

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⁹⁷. 76 F.3d 1185, 1191 (Fed. Cir. 1996).
⁹⁹. 75 F.3d 1545, 1556 (Fed. Cir. 1996).
¹⁰⁰. *Id.* (citation omitted).
¹⁰¹. 76 F.3d 358, 362 (Fed. Cir. 1996) (citation omitted).
¹⁰². In *Zygo*, the Federal Circuit found that one device infringed under the doctrine of equivalents and that another—the redesign—did not. *Zygo Corp. v. Wyko Corp.*, 79 F.3d 1563, 1568 (Fed. Cir. 1996).
cases do not evidence that the doctrine of equivalents took on “a life of its own.”

B. 1995 Federal Circuit Cases Where the Court Addressed the Doctrine of Equivalents

The 1995 decisions by the Court of Appeals for the Federal Circuit follow the same traditional patterns discussed for the 1996 cases.\(^\text{103}\) Out of forty-six patent infringement cases in 1995, five cases substantially involved doctrine of equivalents issues.\(^\text{104}\) Illustrative of these cases is Southwall Technologies v. Cardinal IG Co., where the court adhered to the function-way-result analysis for a window glazing product, noting that “[o]nly if an accused product contains specific structure which meets all limitations of an asserted claim directed to structure, at least equivalently, can that product infringe under the doctrine of equivalents.”\(^\text{105}\) Furthermore, the court recognized that the doctrine of equivalents “is not a tool for expanding the protection of a patent after examination has been completed.”\(^\text{106}\) The court found that the defendant’s process was not within range of equivalents because the patent involved a one-step reactive sputtering technique, and plaintiff surrendered all two-step processes for forming the metal oxide layer.\(^\text{107}\) Thus, “as limited by the prosecution history, the range of permissible equivalents precluded infringement under the doctrine of equivalents.”\(^\text{108}\)

C. The 1995 and 1996 Equivalents Cases Fit the Same Overall Pattern That the Federal Circuit Has Followed Since Its Inception

The pattern observed in the Federal Circuit when addressing doctrine of equivalents issues during the 1995-1996 period—in which the court upheld equivalents infringement in a small number of cases—is typical of the pattern the court has followed since its inception in 1982.\(^\text{109}\)

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103. See infra chart in Part VII.C.
104. Id.
105. 54 F.3d 1570, 1579 (Fed. Cir. 1995) (citing Penwalt Corp. v. Durand-Wayland, Inc., 833 F.2d 931, 935 (Fed. Cir. 1987)).
106. Id (citing Hormone Research Found., Inc. v. Genentech, Inc., 904 F.2d 1558, 1564 (Fed. Cir. 1990)).
107. Id at 1579-81.
108. Id at 1573.
109. S. Corp. v. United States, 690 F.2d 1368, 1369 (Fed. Cir. 1982). The Federal Circuit was established October 1, 1982, pursuant to the Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25. Id. The Federal Circuit adopted as precedent the “holdings of our predecessor courts, the United States Court of Claims and the United States Court of Customs and Patent Appeals, announced by those courts before the close of business September 30, 1982.” Id. Congress’s purpose for creating the Federal Circuit was to harmonize patent law nationwide,
The following table illustrates the pattern followed by the Federal Circuit from 1983—its first full year of operation—through 1996.

<table>
<thead>
<tr>
<th>Year</th>
<th>Patent Infringement Cases</th>
<th>Cases Where Doctrine of Equivalents Was at Issue</th>
<th>Cases Where Court Found Infringement under the Doctrine of Equivalents</th>
<th>Cases Where Court Did Not Find Infringement under the Doctrine of Equivalents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. Cases</td>
<td>% Cases</td>
<td>No. Cases</td>
<td>% Cases</td>
</tr>
<tr>
<td>1983</td>
<td>32</td>
<td>4%</td>
<td>3</td>
<td>75%</td>
</tr>
<tr>
<td>1984</td>
<td>58</td>
<td>4%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>1985</td>
<td>48</td>
<td>4%</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>1986</td>
<td>60</td>
<td>4%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>1987</td>
<td>56</td>
<td>6%</td>
<td>1</td>
<td>17%</td>
</tr>
<tr>
<td>1988</td>
<td>46</td>
<td>7%</td>
<td>3</td>
<td>43%</td>
</tr>
<tr>
<td>1989</td>
<td>37</td>
<td>4%</td>
<td>1</td>
<td>25%</td>
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<tr>
<td>1990</td>
<td>46</td>
<td>3%</td>
<td>1</td>
<td>33%</td>
</tr>
<tr>
<td>1991</td>
<td>37</td>
<td>5%</td>
<td>1</td>
<td>20%</td>
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<tr>
<td>1992</td>
<td>27</td>
<td>4%</td>
<td>0</td>
<td>0%</td>
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<tr>
<td>1993</td>
<td>32</td>
<td>5%</td>
<td>1</td>
<td>20%</td>
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<tr>
<td>1994</td>
<td>25</td>
<td>6%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>1995</td>
<td>46</td>
<td>5%</td>
<td>2</td>
<td>40%</td>
</tr>
<tr>
<td>1996</td>
<td>57</td>
<td>19%</td>
<td>33</td>
<td>26%</td>
</tr>
</tbody>
</table>

In 1996 there was a substantial increase in the number of cases—nineteen—in which the parties invoked the doctrine of equivalents. However, the table reflects that the Federal Circuit maintained the doctrine of equivalents in check. In fifteen of those cases, the court did not find equivalents infringement. The court found equivalents infringement in only five cases, which percentage-wise—twenty-six percent—is in the low end for the 1983-1996 period. For that time period, the percentage of cases in which the court found equivalents as patent actions received disparate treatment among the circuit courts of appeal. T. Whitley Chandler, Note, Prosecution History Estoppel, the Doctrine of Equivalents, and the Scope of Patents, 13 HARV. J.L. & TECH. 465, 469 (2000).

110. Percentages do not always total 100% because cases in which the doctrine of equivalents was at issue, but in which this issue was not decided (e.g., because of remand, law of the case), are not counted in either column.

111. % Cases = No. Cases ÷ Patent infringement cases.

112. % Cases = No. Cases ÷ Cases where Doctrine of Equivalents was at issue.

113. % Cases = No. Cases ÷ Cases where Doctrine of Equivalents was at issue.

114. In Zygo Corp. v. Wyko Corp., 79 F.3d 136 (Fed. Cir. 1996), the court found that one device infringed under the doctrine of equivalents while another did not. The totals for this year reflect findings in both categories.
VIII. THE “FLEXIBLE BAR” IS NOT “UNWORKABLE”

The majority in Festo purports to abandon the “flexible bar” approach because it is “unworkable:”

We believe that the current state of the law regarding the scope of equivalents that is available when prosecution history estoppel applies is “unworkable.” In patent law, we think that rules qualify as “workable” when they can be relied upon to produce consistent results and give rise to a body of law that provides guidance to the marketplace on how to conduct its affairs. After our long experience with the flexible bar approach, we conclude that its “workability” is flawed.115

As with the statement that the doctrine of equivalents has “taken on a life of its own,” this statement is also made without any supporting references. To dispel the Federal Circuit’s “unworkable” argument, it is unnecessary to undertake an analysis similar to the one undertaken above to dismiss the notion that the doctrine of equivalents had “taken on a life of its own.” Federal Circuit Judge Michel addressed this issue eloquently in Festo:116 “Panels of this court have consistently followed Hughes I and flexible estoppel. Indeed, in a parade of cases, from each year of this court’s eighteen-year history, successive and randomly-selected panels of this court have unanimously applied the flexible bar rule, and done so without mention of its newly-discovered “unworkability.””117 Judge Michel then proceeds to list Federal Circuit cases from 1983-2000 that applied the “flexible bar” without any apparent indication that this approach to prosecution history estoppel was “unworkable.”118

Abandoning the “flexible bar” approach in favor of the “complete bar” approach might lighten the Federal Circuit judges’ work load when deciding cases in which prosecution history estoppel arises because applying a bright line rule (e.g., the “complete bar”) is easier than analyzing complex estoppel/equivalents issues under the “flexible bar.”

116. Id. at 612-15 (Michel, J., concurring in part and dissenting in part).
117. Id. at 612 (emphasis added).
118. Id. at 613-15.
At least one commentator has hinted that this might have been the case for the court’s about-face.\(^{119}\)

Federal Circuit statistics support the view that the Federal Circuit judges’ work load has increased substantially over the last several years, as the following table demonstrates.

<table>
<thead>
<tr>
<th>Year</th>
<th>Appeals from U.S. District Courts</th>
<th>Total Appeals(^{120})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pending from Previous Year</td>
<td>Filed</td>
</tr>
<tr>
<td>1997</td>
<td>295</td>
<td>395</td>
</tr>
<tr>
<td>1998</td>
<td>292</td>
<td>419</td>
</tr>
<tr>
<td>1999</td>
<td>323</td>
<td>466</td>
</tr>
<tr>
<td>2000</td>
<td>392</td>
<td>455</td>
</tr>
</tbody>
</table>

As can be gleaned from the above table, appeals pending from U.S. district courts increased by 33% from 1997 to 2000, and total appeals pending increased by 31% for the same time period. Thus, the court’s backlog increased substantially during this time period. Using bright line rules such as the “complete bar” as rules of decision might enable the court to decrease this backlog. While it is understandable that judges might want to simplify their decision-making rules to abate their increasing work load, they should provide precedential—or at least evidentiary—support for their rule-changing decisions. Merely stating that a rule has become “unworkable,” without any precedential or evidentiary support for changing the rule is not enough.

IX. THE \textit{Festo} Decision

\textit{Festo} was an appeal from a judgment of the United States District Court for the District of Massachusetts.\(^{121}\) The district court held that

\(^{119}\) Atkinson et al., supra note 4, at 135 ("Thus, it would appear that the \textit{Festo} Rule does not seek increased certainty so much as reduced litigation.").

\(^{120}\) Report of the Proceedings of the Judicial Conference of the United States, tbl. B-8 (1997-2000), Statistics from 1997, 1998, 1999, and 2000, available at http://www.fedcir.gov/#information, corresponding to table B-8: “U.S. Court of Appeals for the Federal Circuit—Appeals Filed, Terminated and Pending During the Twelve-month Period Ended September 30” of the respective years. The sources of appeals to the Federal Circuit include, in addition to appeals from the U.S. district courts, appeals from the following: Board of Contract Appeals, Court of International Trade, Court of Veterans Appeals, Department of Veterans’ Affairs, U.S. Claims Court, International Trade Commission, Merit Systems Protection Board, PTO, Senate Select Committee on Ethics, and Writs. No appeals were made for the years referred to in the table from the Secretary of Agriculture, the Secretary of Commerce, the General Accounting Office, or the Office of Personnel Management. Appeals from the U.S. district courts ranged from 27% in 1997 to 30% in 2000. Not all the appeals from the U.S. district courts are from patent cases. The Federal Circuit has jurisdiction over appeals from other types of cases.
Shoketsu Kinzoku Kogyo Kabushiki Co. infringed two patents under the doctrine of equivalents.\textsuperscript{122} The Federal Circuit, \textit{en banc}, reversed the district court’s decision.\textsuperscript{123} In doing so, it held that “[w]hen a claim amendment creates prosecution history estoppel with regard to a claim element, there is no range of equivalents available for the amended claim element. Application of the doctrine of equivalents to the claim element is completely barred (a ‘complete bar’).”\textsuperscript{124}

The Federal Circuit, in adopting the “complete bar” approach, has strained the interpretation of its precedential and binding case law.

\textbf{A. Supreme Court Precedent}

One such strained interpretation of case law is reflected in the court’s statement that “[b]ecause the Supreme Court has not fully addressed the range of equivalents that is available once prosecution history estoppel applies, we must independently decide the issue.”\textsuperscript{125} A cursory review of the Supreme Court’s \textit{Warner-Jenkinson} decision reveals that—contrary to the Federal Circuit’s assertion—the Supreme Court implicitly and explicitly endorsed the “flexible bar” approach to prosecution history estoppel rather than the “complete bar” approach.\textsuperscript{126}

As noted above, in \textit{Warner-Jenkinson} the Court remanded the case so that the Federal Circuit could determine \textit{why} the patentee had limited the lower limit of the pH range to 6 during prosecution.\textsuperscript{127} With this remand, the Supreme Court was implicitly ordering the Federal Circuit to apply the “flexible bar” to prosecution history estoppel. Had the Supreme Court intended the “complete bar” approach to apply, it would have held that by adding the pH of 6 limitation during prosecution, the patent claim was limited to solely a lower limit pH of 6, and there was no need to remand because the lower limit of the pH on the accused infringer’s process was less than 6 (it was 5).

\textsuperscript{121} Festo, 234 F.3d at 562-63. For an explanation of the technology at issue in \textit{Festo}, see \textit{Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.}, 172 F.3d 1361, 1364-67 (Fed. Cir.), \textit{reh’g en banc} granted, \textit{vacated} by 187 F.3d 1381 (Fed. Cir. 1999); \textit{Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.}, 72 F.3d 857, 861-63 (Fed. Cir. 1995), \textit{vacated} by \textit{Shoketsu Kinzoku Kogyo Kabushiki Co. v. Festo Corp.}, 520 U.S. 1111 (1997); Atkinson et al., \textit{supra} note 4, at 123-24.

\textsuperscript{122} Festo, 234 F.3d at 562-63.

\textsuperscript{123} Id. at 564.

\textsuperscript{124} Id. at 569.

\textsuperscript{125} Id. at 571.

\textsuperscript{126} See \textit{supra} Part VI for a comprehensive discussion of \textit{Warner-Jenkinson}.

The Supreme Court also made explicit its views on whether a “flexible bar” or “complete bar” approach should apply to prosecution history estoppel:

It is telling that in each case this Court probed the reasoning behind the Patent Office’s insistence upon a change in the claims. In each instance, a change was demanded because the claim as otherwise written was viewed as not describing a patentable invention at all—typically because what it described was encompassed within the prior art. But, as the United States informs us, there are a variety of other reasons why the PTO may request a change in claim language. Brief for United States as Amicus Curiae 22-23 (counsel for the PTO also appearing on the brief). And if the PTO has been requesting changes in claim language without the intent to limit equivalents or, indeed, with the expectation that language it required would in many cases allow for a range of equivalents, we should be extremely reluctant to upset the basic assumptions of the PTO without substantial reason for doing so. Our prior cases have consistently applied prosecution history estoppel only where claims have been amended for a limited set of reasons, and we see no substantial cause for requiring a more rigid rule invoking an estoppel regardless of the reasons for a change.\(^\text{128}\)

In the footnote accompanying the previous passage, the Supreme Court stated:

\textit{That petitioner’s rule might provide a brighter line [i.e., “complete bar” approach] for determining whether a patentee is estopped under certain circumstances is not a sufficient reason for adopting such a rule. \textit{This is especially true where, as here, the PTO may have relied upon a flexible rule of estoppel when deciding whether to ask for a change in the first place.}}\(^\text{129}\)

Thus, it is clear that in the Warner-Jenkinson decision the Supreme Court applied the “flexible bar” approach. The Court refused to adopt the “complete bar” approach, expressing concern that “[t]o change so substantially the rules of the game now could very well subvert the various balances the PTO sought to strike when issuing the numerous patents which have not yet expired and which would be affected by our decision.”\(^\text{130}\) Instead of applying a “complete bar,” the Court remanded

\(^{128}\) \textit{Id.} at 31-32 (footnote omitted) (emphasis added).

\(^{129}\) \textit{Id.} at 32 n.6 (emphasis added).

\(^{130}\) \textit{Id.} This statement should not be construed to mean that the PTO grants patents with an understanding that the allowed claims should be or should not be construed to have some range of equivalents. The PTO cares about the validity of a patent application, and not about infringement. \textit{But see} Litton Sys., Inc. v. Honeywell, Inc., 140 F.3d 1449, 1456-57 (Fed. Cir. 1998) (“As noted above, the entire context of the \textit{Warner-Jenkinson} opinion shows that the Supreme Court approved the PTO’s practice of requesting amendments with the understanding that the doctrine of equivalents would still apply to the amended language. As noted above, this court had repeatedly articulated that rule.”).
the case to determine whether any equivalents should be allowed to the lower limit pH of 6, that is, whether a pH of 5 was equivalent for purposes of the patent claim at issue to a pH of 6. Had the Supreme Court intended to apply the “complete bar” approach, it would have held that there were no equivalents to the lower limit pH of 6 because that limit was the result of an amendment to the patent claim during prosecution.

B. Federal Circuit Precedent

The Federal Circuit stated in Festo that in addition to the “flexible bar” approach to prosecution history estoppel initiated by its Hughes decision, discussed above, another line of cases—initiated by Kinzenbaw v. Deere & Co.131—adopted the “complete bar” approach.132

Contrary to the Federal Circuit’s interpretation of Kinzenbaw in Festo, the court in Kinzenbaw did not establish a new standard or test to determine the effect of a claim amendment in an infringement action. Rather, Kinzenbaw was a straightforward application of the principle that “a patentee should not be able to obtain, through the doctrine of equivalents, coverage of subject matter that was relinquished during prosecution to procure issuance of the patent.”133 This is the essence of prosecution history estoppel,134 and not the creation of a new standard (e.g., the “complete bar” approach) for prosecution history estoppel.

In Kinzenbaw, the invention at issue was “a row planter, an agricultural machine that, when pulled by a tractor, opens a furrow in the soil, places seeds at appropriate intervals in the furrow, and loosely covers the seeds with moist earth.”135 Planters have various components, including round blades called discs and gauge wheels.136

One of the patents at issue in Kinzenbaw was the Pust patent. The claim at issue in this patent “did not claim any specific relationship between the radius of the discs and the radius of the gauge wheels” when the patent application was originally filed with the PTO.137

The examiner found this claim unpatentable over certain prior art. Pust then amended this claim as follows:

131. 741 F.2d 383 (Fed. Cir. 1984).
134. Id.
135. Kinzenbaw, 741 F.2d at 385.
136. Id. at 388.
137. Id.
In order to overcome this rejection, the patentee narrowed the claims by specifying the radius of the gauge wheels involved. After an interview with the examiner, Pust amended claim 8 to cover only devices wherein “the radius of the wheels . . . [is] less than the radius of the disc.” The patent claim was issued with this limitation.\(^{138}\)

The Pust patent was assigned to Deere & Co. (Deere), which accused Kinzenbaw that its planter infringed the Pust patent. The jury found that in Kinzenbaw’s device “the radius of the gauge wheel exceeded the radius of the disc.”\(^{140}\) Thus, there could be no literal infringement.

Deere contended that there was infringement under the doctrine of equivalents because the accused Kinzenbaw planter satisfied the function-way-result test for determining equivalents infringement.\(^{141}\) However, the district court found—and the Federal Circuit affirmed—that prosecution history estoppel precluded Deere from relying on the doctrine of equivalents.\(^{142}\) The Federal Circuit stated that “[f]inding that Pust had intentionally narrowed his claims [by including the radius limitation in the claim] in order to avoid the examiner’s rejection and obtain the patent, the [district] court refused to permit Deere to avoid that limitation upon the claims through the doctrine of equivalents.”\(^{143}\)

Deere “attempt[ed] to avoid the doctrine of prosecution history estoppel on the ground that Pust’s limitation of his claims to devices in which the gauge wheels had a smaller radius than the discs was unnecessary to distinguish the prior art.”\(^{144}\) The Federal Circuit disregarded this argument, stating:

The file on Pust’s patent, to which the public had access, explicitly showed that in response to the examiner’s rejection, Pust had narrowed his claims to a planter in which “the radius of the wheel . . . [is] less than the radius of the disc.” Deere offers no convincing reason why a competing manufacturer was not justified in assuming that if he built a planter in which the radius of the wheels was greater than that of the disc, he would not infringe the Pust patent . . . . Kinze adopted the very element that Pust had eliminated for the stated purpose of avoiding the examiner’s rejection and obtaining the patent.\(^{145}\)

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\(^{138}\) Id. (emphasis added).

\(^{139}\) Id.

\(^{140}\) Id. at 388-89.

\(^{141}\) Id. at 389.

\(^{142}\) Id.

\(^{143}\) Id.

\(^{144}\) Id. (citation omitted).

\(^{145}\) Id.
The rationale of the Federal Circuit in *Kinzenbaw* is founded on the core principle of the doctrine of prosecution history estoppel that “a patentee should not be able to obtain, through the doctrine of equivalents, coverage of subject matter that was relinquished during prosecution to procure issuance of the patent.”

Pust relinquished the subject matter comprising devices wherein the radius of the wheels is equal or greater than the radius of the discs. Deere, the patent holder, asserted equivalents infringement even though Kinzenbaw’s planter was found to have gauge wheels whose radius was greater than the radius of the disc. This is exactly what was relinquished during prosecution of the claim. *Kinzenbaw* illustrates the application of the core principle of prosecution history estoppel, and not the application of a “complete bar” approach.

*Kinzenbaw*’s progeny is limited. In *Prodyne Enterprises, Inc. v. Julie Pomerantz*, the Federal Circuit cited *Kinzenbaw* with approval, holding that prosecution history estoppel precluded the patentee from a finding of infringement under the doctrine of equivalents. In *Prodyne*, the principle guiding the court was the same core prosecution history principle that “[t]he doctrine of prosecution history estoppel precludes a patent owner from obtaining a claim construction that would resurrect subject matter surrendered during the prosecution of his patent application.” In fact, the *Prodyne* Court quoted Hughes for this proposition, which is the case—discussed above—where the Federal Circuit established the “flexible bar” approach.

In *Prodyne*, the district court found that the patentee, in amending the claim at issue during prosecution, “had chosen specific words of limitation to avoid a reference cited by the examiner.” The patentee argued that the amendment was an “unnecessary limitation,” but the Federal Circuit was unpersuaded by this argument. Thus, the Federal Circuit agreed with the district court that the patentee made the

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147. *Kinzenbaw*, 741 F.2d at 388-89.
149. *Prodyne*, 743 F.2d at 1583 (“Being unpersuaded by Prodyne's argument, we decline, as did this court in *Kinzenbaw* v. Deere & Co., 741 F.2d 383 at 389 (Fed. Cir. 1984), to undertake the ‘speculative inquiry’ as to the necessity of the claim limitation in receiving a patent grant.”).
150. *Id.* (quoting Hughes Aircraft Co. v. United States, 717 F.2d 1351, 1362 (Fed. Cir. 1983)).
151. *Id.* (emphasis added).
152. *Id.*
amendment to avoid a prior art reference that would have rendered the claim at issue unpatentable. 154

The Federal Circuit also held that the limitation added by the patentee during prosecution should reasonably lead the accused infringer to believe that it was not “within the legal boundaries of the patent claims in suit.” 155 This is a clear reference to the principle that patents, including their prosecution history, serve as notice to the public of what is claimed and what the public has a right to practice as long as it is not within the scope of the patent claims. Having made these findings, the Federal Circuit’s statement that “we decline, as did this court in Kinzenhaw v. Deere & Co., 741 F.2d 383 at 389 (Fed. Cir. 1984), to undertake the ‘speculative inquiry’ as to the necessity of the claim limitation in receiving a patent grant” 156 may be justly described as embellished dicta.

X. CONCLUSION

The Federal Circuit in Festo struck a dramatic blow to the balance that has existed for many years regarding the scope of patent claims, prosecution history estoppel, and the doctrine of equivalents. Supreme Court precedent and the Federal Circuit’s own precedent do not justify this blow that significantly curtails a patentee’s ability to obtain a finding of infringement under the doctrine of equivalents. This shift in balance is at odds with the Supreme Court’s statement in Warner-Jenkinson that “[t]o change so substantially the rules of the game now could very well subvert the various balances the PTO sought to strike when issuing the numerous patents which have not yet expired and which would be affected by our decision.” 157 Accordingly, the Supreme Court should overrule Festo.

XI. ADDENDUM: THE SUPREME COURT DECIDES FESTO

On May 28, 2002, the United States Supreme Court decided Festo. 158 The Court “disagree[d] with the decision to adopt the complete bar,” 159 and vacated the Federal Circuit’s decision. 160 The Court asserted that it had consistently applied prosecution history estoppel in a flexible

154. Id.
155. Id.
156. Id.
159. Id. at 1840.
160. Id. at 1843.
way, and not as “a complete bar that resorts to the very literalism the
equivalents rule is designed to overcome.” 161

The Court reasoned that the complete bar “is inconsistent with the
purpose of applying the estoppel in the first place—to hold the inventor
to the representations made during the application process and to the
inferences that may reasonably be drawn from the amendment.” 162 The
Court explained that language remains an imperfect tool to describe a
claim, even after it is amended, and that a “narrowing amendment should
[not] be deemed to relinquish equivalents unforeseeable at the time of the
amendment and beyond a fair interpretation of what was surrendered.” 163

Similarly, “claims of equivalence for aspects of the invention that have
only a peripheral relation to the reason the amendment was submitted”
should not be foreclosed. 164

The Court gave several examples of situations where a claim
amendment does not foreclose infringement under the doctrine of
equivalents.

The equivalent may have been unforeseeable at the time of the application;
the rationale underlying the amendment may bear no more than a
tangential relation to the equivalent in question; or there may be some other
reason suggesting that the patentee could not reasonably be expected to
have described the insubstantial substitute in question. In those cases the
patentee can overcome the presumption that prosecution history estoppel
bars a finding of equivalence. 165

The Court did make an adjustment to the patentee-accused infringer
relationship in the context of prosecution history/equivalents
infringement: The patentee is to “bear the burden of showing that the
amendment does not surrender the particular equivalent in question.” 166
The implied presumption therein, the Court stressed, “is not . . . just the
complete bar by another name.” 167

Thus, the Supreme Court disavowed the Federal Circuit’s
adoption of the complete bar. It resurrected the flexible bar when
determining whether prosecution history estoppel applies against a
claim of infringement under the doctrine of equivalents, provided
guidance on the application of this bar, and imposed on the patentee an
additional burden of proof applicable to this legal conflict.

161. Id. at 1841.
162. Id. at 1840.
163. Id. at 1841.
164. Id.
165. Id.
166. Id.
167. Id. at 1842.