

Patent

COMMENTARY

VOLUME 1, ISSUE 1 / JUNE 2004

Festo: The (Nearly) Final Chapter

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After nine published federal court decisions, including two U.S. Supreme Court decisions, and 15 years of litigation, it's all over but the shouting for *Festo Corp. v. SMC Corp.*¹ (*Festo I*) and its many progeny. On Sept. 26, 2003 the U.S. Court of Appeals for the Federal Circuit issued what is likely to be its last significant *Festo* opinion² (*Festo IX*), providing a coherent set of principles and remanding several narrow procedural issues to the District Court.

Festo IX, in all likelihood, will finally settle all the remaining substantive issues in the *Festo* cases.

This article will review the Supreme Court and Federal Circuit decisions in the *Festo* cases and provide some suggestions for prosecuting patents in view of these decisions.

The Doctrine of Equivalents And Prosecution History Estoppel

The doctrine of equivalents, or DOE, is a well-established principle of U.S. patent law. Under the DOE, an accused product that does not literally infringe a patent's claim, because it does not have the exact features recited therein, may be found to infringe if it has an "equivalent" of each element recited in the claim. The best-known DOE case prior to the *Festo* lineage is *Graver Tank & Manufacturing Co. v. Linde Air Products Co.*,³ which dates back to 1939.

In *Graver Tank* the disputed claim recited an "alkaline earth metal silicate"⁴ welding flux. The accused flux had a silicate of manganese, which is not an alkaline earth metal. The accused flux was found to infringe under the DOE.

The Supreme Court, in *Graver Tank*, cited the two most commonly used explanations of an "equivalent": whether the differences between the accused flux and the patented flux were "insubstantial,"⁵ and whether the respective fluxes performed "substantially the same function in substantially the same way to obtain the same result."⁶

Prosecution history estoppel, or PHE, is also a well-settled patent law doctrine that affects claim interpretation in cases of both literal infringement and infringement under the DOE.

An early case that applied the PHE doctrine was *Keystone Driller Co. v. Northwest Engineering Corp.*,⁷ in which an original claim recited a machine having a boom connected to a pulley. During examination of the claims by the U.S. Patent and Trademark Office, the prior art showed a machine having a boom and a pulley. In response, in order to make the claim allowable, the patentee narrowed the claim to recite a boom pivotally connected to a pulley.

Thereafter, an accused infringer having a boom and a pulley surfaced; however, the accused device did not have a pivotal connection. Under PHE, a device without a pivotal connection could not be deemed an infringing device.

PHE prohibits the patentee in this instance from arguing under the DOE that a non-pivotal connection was equivalent to a pivotal connection, because he had already agreed with the PTO that it was the pivotal connection that made the invention patentable.

PHE's role as a limitation on the DOE is as follows: If the patentee narrows a claim during prosecution to meet any requirement for obtaining the patent, then the DOE is not available to later expand the claim beyond its narrowed claim scope.

A narrowing amendment, if it is made for a substantial reason related to patentability, is in the nature of an agreement with the PTO whereby the patentee agrees to give up part of the original claimed subject matter. The patentee knows what he is giving up. His reward is the grant of a patent. The patentee cannot later renege on that agreement by attempting to broaden the claim via the DOE in order to pursue an infringer.

Basic Issue in *Festo*

The central issue throughout the *Festo* cases was the relationship between PHE and the DOE. These two ideas are in constant tension in the U.S. courts.

It is often argued that patent claims should be expandable by the DOE beyond the literal words on the patent, in order to be fair to the patentee. Words cannot always define an invention perfectly, and when writing the claims, the patentee cannot always foresee the products that competitors will make.

An infringer who copies a patented invention should not escape liability merely by making insubstantial changes to the invention that take it slightly outside the literal wording of the claims.

The DOE is based on the difficulty of writing claims that will cover all possible known and unknown infringements. The DOE is not relevant if the original application disclosed the purported equivalent, but the final patent did not literally disclose it. For example, the DOE is not applicable if the patentee originally claimed the equivalent and then narrowed the claim to obtain the patent.

The opposing argument to expanding the scope of claims under the DOE is that the claims of a patent should give clear notice to the public and to the industry of the invention that the patent protects. A patent having claims without a definite and clearly discernable scope may result in wasteful litigation by a patentee who wrongly believes the patent is infringed. Competitors may mistakenly invest in infringing products, not anticipating how the claims will be expanded under the DOE.

Furthermore, competitors may overestimate the scope of a claim and erroneously decide not to invest in legitimate new ventures; thus, the patent may serve the opposite of its intended purpose of "promoting the progress of science and useful arts."⁸

The courts since the 1990s have been giving greater weight to the argument against the expansion of a claim's scope under the DOE. As a result, PHE is being given a greater limiting effect on the DOE.

As described in *Johnson & Johnston Associates Inc. v. R.E. Service Co.*,⁹ the DOE is not applicable if the patentee initially disclosed the equivalent but did not include a claim broad enough to cover it.

In both *Keystone* and *J&J*, it was clear from the prosecution history that the inventor knew the broad words that would have covered the accused equivalent and knew the narrow words that would not cover the accused equivalent but would enable him to get his patent. Both inventors chose the narrower terms, knowing that the allowed claims would be narrower than the full range of equivalents originally disclosed.

Most would agree that PHE was rightfully used to limit the expansion of the DOE in those cases, where the amended claims were narrowed to become allowable. However, what if the amendment was not narrowed for the purpose of avoiding prior art, but for the purpose of clarification? To answer this we must turn to the *Festo* cases.

The Festo Lineage

Festo I through *Festo IX* concerned two of its patents on magnetically coupled pneumatic cylinders: the Stoll patent¹⁰ and the Carroll patent.¹¹ The claims in both patents were deemed unclear by the PTO and were rejected as indefinite under 35 U.S.C. § 112, para. 112; prior art rejections were not involved.

In response, the claims of both applications were amended to require "a pair of sealing rings."¹³ Also, the claim of the Stoll patent was amended to require "a piston sleeve made of a magnetizable material."¹⁴

Defendant SMC Corp.'s device differed from *Festo's* In that it lacked "a pair of sealing rings" and "a piston sleeve made of a magnetizable material."¹⁵ Instead, SMC's device had a piston sleeve made of a non-magnetizable material" (an aluminum alloy) and used a single two-way sealing ring. Thus, SMC could not literally infringe *Festo's* patents.

However, *Festo I* held that both patents were infringed under the DOE. *Festo I* declined to apply PHE, for the reason that the narrowing amendments were only for the purpose of clarity, and not to distinguish the invention from prior art.¹⁶

The Federal Circuit's 2000 Decision

The Federal Circuit in its 2000 *Festo* decision¹⁷ (*Festo VII*) decided that PHE should have stopped *Festo* from asserting DOE infringement. In *Festo VII* the court created what became known as the "absolute bar," which holds that prosecution history estoppel is a complete bar to any range of equivalents for a claim element that was narrowed for any reason related to patentability, that is, narrowed in order to comply with any part of the Patent Act.¹⁸

Thus, "reasons related to patentability" encompasses all statutory requirements, including 35 U.S.C. §§ 101, 102 and 103, and the requirements of enablement, written description, best mode and definiteness in Section 112.¹⁹ No flexibility in claim interpretation — no range of equivalents — would be available if there had been any such amendment.

Festo VII placed great emphasis on the notice function of patent claims to justify abolishing the "flexible bar" and adopting this "bright-line" rule.²⁰ *Festo VII* came as an enormous shock to everyone concerned with patents. The scope of nearly a million issued patents was reduced overnight, because of amendments that had been made in good faith, years before.

The Supreme Court's 2002 Decision

The patent community was relieved in 2002 when the U.S. Supreme Court reversed the Federal Circuit's absolute bar.²¹ This decision, *Festo VIII*, announced a new doctrine of a "rebuttable presumption" that struck a balance between the principle that claims serve a notice function and the need for fairness to the patentee.

The new standard is a rebuttable presumption that a narrowing amendment will bar a claim from covering an alleged equivalent that falls between the broader and narrower claim language.²² *Festo VIII* emphasized, again, the need for fairness to the patentee, because words are not a perfect means of defining the metes and bounds of an invention.²³

In a spirit of compromise between the two opposing ideas of notice and fairness to the patentee, *Festo VIII* affirmed the Federal Circuit's holding that a narrowing amendment which was made to satisfy any requirement of the Patent Act may give rise to prosecution history estoppel.²⁴

Festo VIII set forth the analysis to be applied as follows:²⁵

Was the pertinent claim limitation narrowed by amendment? The claim must be analyzed to determine whether its original scope was broader than the scope of the amended language; if not, there is no estoppel.

Was the claim language amended for reasons relating to patentability? If not, there is no estoppel. It will probably be very difficult to rebut the presumption that the amendment was related to patentability, if the scope of the original language was narrowed. On the other hand, if an amendment (perhaps in response to a criticism under Section 112) is truly cosmetic, then it will not narrow the patent's scope or raise an estoppel.

Can it be shown "that at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent"?²⁶

If so, then there is no estoppel. Here, the focus shifts from "reasonable competitor" to "one skilled in the art" and the claim drafting process.²⁷ The inventor and the patent attorney are expected to draft claims that cover all reasonably well-known equivalents.

The patentee can establish "that at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent" by showing one of the following facts:

- The equivalent was unforeseeable at the time of the amendment;²⁸
- The rationale for the amendment bears "no more than a tangential relation to the equivalent in question";²⁹ or
- Some other reason "that the patentee could not reasonably be expected to have described the insubstantial substitute in question."³⁰

The 2003 Federal Circuit Decision

Having set forth a new "rebuttable presumption" standard, the Supreme Court remanded the case to the Federal Circuit for reconsideration in 2003.

Festo IX began with a review of the portions of the Federal Circuit's 2000 decision that were not affected by the Supreme Court's decision in *Festo VIII*, stating that the high court "expressly endorsed our holding that a narrowing amendment made to comply with any provision of the Patent Act, including Section 112, may invoke an estoppel."³¹

A "voluntary" amendment may give rise to prosecution history estoppel.³² The Supreme Court in *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*³³ defined a narrowing amendment as one that was made for a "substantial reason related to patentability" when the record does not reveal the reason for the amendment.

Post-*Festo VIII*, the *Warner-Jenkinson* standard remains intact; however, the consequences of failing to overcome that presumption have been altered. In *Festo VII* the Federal Circuit held that such an "unexplained" amendment completely estopped a patentee from relying on the DOE for the narrowed claim limitation.³⁴

Although *Festo VIII* rejected the "complete bar" approach, it confirmed that a patentee's failure to overcome the *Warner-Jenkinson* presumption gives rise to a new presumption of surrender.

"[W]hen the court is unable to determine the purpose underlying a narrowing amendment — and hence a rationale for limiting the estoppel to the surrender of particular equivalents — the court should presume that the patentee surrendered all subject matter between the broader and the narrower language."³⁵

A patentee is now entitled to rebut the presumption that an "unexplained" narrowing amendment surrendered the entire territory between the original and the amended claim limitations:

Thus, the *Warner-Jenkinson* and *Festo* [VIII] presumptions operate together in the following manner: The first question in a PHE inquiry is whether an amendment filed in the ... [PTO] has narrowed the literal scope of a claim. If the amendment was not narrowing, then ... [PHE] does not apply. But, if the accused infringer establishes that the amendment was a narrowing one, then the second question is whether the reason for that amendment was a substantial one relating to patentability. When the prosecution history record reveals no reason for the narrowing amendment, *Warner-Jenkinson* presumes that the patentee had a substantial reason relating to patentability; consequently, the patentee must show that the reason for the amendment was not one relating to patentability if it is to rebut that presumption. ... A patentee's rebuttal of the *Warner-Jenkinson* presumption "is restricted to the evidence in the prosecution history record. If the patentee successfully establishes that the amendment was not for a reason of patentability, then prosecution history estoppel does not apply. If ... a narrowing amendment has been for a substantial reason relating to patentability — whether based on a reason reflected in the prosecution history record or on the patentee's failure to overcome the *Warner-Jenkinson* presumption — then the third question in a prosecution history estoppel analysis addresses the scope of the subject matter surrendered by the narrowing amendment."³⁶

The presumption is that the patentee has surrendered all territory between the original claim limitation and the amended claim limitation. "The patentee may rebut that presumption of total surrender by demonstrating that it did not surrender the particular equivalent in question according to the [above criteria]."³⁷

"Finally, if the patentee fails to rebut the *Festo* [VIII] presumption, then prosecution history estoppel bars the patentee from relying on the doctrine of equivalents for the accused element. If the patentee successfully rebuts the presumption, then prosecution history estoppel does not apply and the question whether the accused element is in fact equivalent to the limitation at issue is reached on the merits."³⁸

The Issues Decided in *Festo IX*

The 2003 Federal Circuit decision dealt mainly with some rather narrow, technical issues that had been left undecided by the Supreme Court. On remand, the Federal Circuit invited briefs on several specific issues. The issues and the respective holdings issued by the appeals court are as follows:

First considered was whether rebuttal of the presumption of surrender, including issues of foreseeability, tangentialness or reasonable expectations of those skilled in the art, is a question of law or one of fact, and what role a jury should play in determining whether a patent owner can rebut the presumption.

The Federal Circuit held that rebuttal of the presumption is a question for the trial judge. PHE is traditionally considered an "equitable" doctrine of the sort that is decided by the judge alone. Does a jury have any role? The level of ordinary skill in the art may be decided by the jury as part of a validity determination. However, it is the trial judge who will apply the law to the jury's factual findings.

Second, the Federal Circuit addressed what factors are encompassed by the Supreme Court's rebuttal criteria. The factors should not be prescribed in advance, but rather should be left to be developed case-by-case.

However, the appeals court gave some general guidelines to determine whether the alleged equivalent was "unforeseeable at the time of the amendment and thus beyond a fair interpretation of what was surrendered."³⁹ Evidence of unforeseeability would include the skill and knowledge of those working in the art, the complexity of the art, known substitutes and known ways of modifying and combining the claimed elements, and the difficulty of using words to describe unknown future technology.

Technology developed after the amendment would not ordinarily have been foreseeable. Non-obviousness of the substitute, as shown by separate patentability, may establish unforeseeability.⁴⁰ The equivalent may have been unforeseeable if it had not yet been tested as a viable substitute for the claimed element.⁴¹ The level of ordinary skill in the art is a key issue. A higher level of education or skill may favor a finding of foreseeability.

Third, the Federal Circuit decided when the rationale for an amendment bears "no more than a tangential relation" to the accused equivalent. The rationale for the narrowing amendment made to overcome the prior art rejection is probably "merely tangential" to the equivalent if the alleged equivalent is not encompassed by the cited prior art.

The Federal Circuit emphasized the importance of looking at the purpose for which the amendment was made. Whether an amendment was intended to remove the alleged equivalent from the claim coverage, or whether it was made for some other reason, should be stated clearly in the prosecution history, in order to fulfill the "public notice" function of the patent.

Fourth, the Federal Circuit suggested that the shortcomings of language as a medium for defining a real-world invention or for describing an equivalent are reasons that a patentee could not have been expected to describe an alleged equivalent in the amended claims. Another instance in which the patentee arguably could not have been able to claim the equivalent is when the patentee had conceived of the alleged equivalent but had not yet satisfied the enablement requirement of 35 U.S.C. § 112.

Having addressed the several issues of patent prosecution arising in *Festo*, the Federal Circuit remanded to the District Court for further development of the facts, because the record lacked evidence of unforeseeability of the accused equivalents at the time of making the amendments.

The Federal Circuit, however, found that *Festo* pointed to no evidence showing that the amendments were merely tangential to the accused infringement or any "other reason" why the claims were narrowed.⁴²

The District Court, however, was provided with a new standard by which it can decide the facts in accordance with the standard propagated by the Federal Circuit's resolution of the above noted issues.

Reconciling *Festo IX* With *J&J*

There is a tension between *Festo IX* and *J&J*. In *J&J* the patentee was completely barred from asserting that subject matter disclosed in the application, but not encompassed by the claims, was an equivalent under the DOE, regardless of the circumstances that led to the failure to claim the equivalent. *J&J* adopted a bright-line rule that subject matter disclosed but not claimed is dedicated to the public.⁴³

Was the *J&J* decision correct in light of the Supreme Court's rejection of the Federal Circuit's comparable bright-line rule on DOE in *Festo VII*? In light of the Supreme Court's reasoning in *Festo VIII*, perhaps there should be a rebuttable presumption of dedication to the public.

Patent Prosecution After *Festo IX*

Festo IX reinforced the traditional rules of good patent drafting.

A good prior art search will result in fewer prior art amendments and a better understanding of equivalents that should be covered by the claims. The inventor, too, should carefully consider what "design-arounds" competitors are likely to try in the future. Knowing the prior art will reveal potential "design-arounds" and provide a knowledge of related terminology used in the prior art so that it can be included in the application.

When prosecuting a patent, do not petition for special status on the ground of infringement. The decision on the petition will require the examiner to decide on the issue of infringement, including infringement under the DOE, which should better be left to the courts.

Drafting the Specification

A comprehensive specification is necessary to provide support for any needed claim amendments. However, *J&J* reminds us that the specification should contain only those inventions that you intend to claim, to protect your present business needs.

Drafting the Claims

The claims should be carefully drawn to cover the entire disclosed invention. If the entire disclosure is claimed, infringement will be literal, and there will be no need for the DOE.

It is unwise to rely, during prosecution, on the future use of the DOE when enforcing the patent. It is wiser to seek allowance of broad claims that will be literally infringed.

In order to avoid making amendments, the application should contain a full range of claims of varying scope, so that at least some claims will be clearly allowable over the art without amendment.

Use multiple claims and types of claims. More claims permit claiming the invention in a variety of ways. Nested ranges are useful when appropriate to the invention. Claims should be carefully divided into discrete elements, either in separate paragraphs or otherwise. It is helpful to claim the invention in "chains" of short dependent claims.

The use of "means-plus-function" claims can be helpful, since these claims already have a statutorily mandated range of equivalents under 35 U.S.C. § 112, para. 6⁴⁴ and this range of equivalents was not restricted by *Festo IX*.

When possible, the claims should be placed in final form before filing, rather than filing the application along with a preliminary amendment. Applicants who file translated foreign patent applications should be encouraged to have the U.S. application placed in good U.S. form before filing.

Amending the Claims

There will almost always be amendments during prosecution. The task is to avoid the risks created by the *Festo* cases when amending the claims. An interview with the examiner, at least by telephone, may help keep amendments to a minimum.

If amendments are necessary, always give reasons for each amendment. A problem in *Festo* was that the patentees made more than one amendment to a single element of the invention. Some of the amendments (possibly the "magnetizable" material) may have been unnecessary, or cosmetic. But since no reasons were given, the courts presumed that all of the amendments were necessary for patentability. Some of *Festo* Corp.'s amendments should have been placed in dependent claims so they would not have affected the scope of the broader parent claims.

When patentable subject matter is found in a claim, it should be placed in allowable form immediately without further narrowing or revision. An expedited, *Festo*-free patent can then be obtained, if desired, by canceling and resubmitting the rejected claims in a continuing application.

"Cosmetic" is a good word for describing an innocuous amendment not required for patentability, given the Supreme Court's use of that word.⁴⁵ Avoid admitting that an amendment is for the purpose of patentability.

Unless specificity is required, the reasons given should be innocuous — "for purposes of clarity and to better define the invention and not necessitated by any requirement of the patent laws." Or, "the amendment merely makes explicit that which already was implicit in the original claim and therefore does not change or narrow the scope of the claim." (Obviously, the truth of such boilerplate statements will be put to the test in any infringement litigation.) Likewise, when possible, point out that an amendment actually broadens, and does not narrow, a claim or an element of a claim.

When distinguishing an invention from cited prior art, any extensive discussion of the invention can create an estoppel and narrow the future interpretation of the claim. It is simpler and safer to describe only the prior art, not the disclosure. It is often enough to say "the reference does not disclose or suggest the invention of claim 1 because the reference does not suggest [an element selected from the claim language] as claimed."

Keep the Commercial Product In Mind at Every Stage

Products can change. At every step during prosecution verify that the claims still embrace your commercial product (and competitive products, if known). Are future product changes contemplated — and will those new products still be within the literal scope of the pending claims?

When amending or dropping a claim, the inventor and the applicant should carefully consider the effect on their business, including their best guess at their competitors' product development plans.

After Allowance

The inventor and applicant should again consider whether they are satisfied with the literal scope of the allowed claims. There may have been product changes. A continuation or continuation-in-part application can be filed in view of recent commercial product changes or plans for future products. Even after issue, a reissue application may be considered, if it appears the scope of the issued claims is too limited.

Conclusion

The *Festo* cases are nearing an end and no major issues remain to be decided. The several *Festo* decisions have given us a coherent set of principles, which balance the notice function of a patent against the need to construe patent claims broadly to cover infringing equivalents. The legacy of *Festo* will be clearer and more definite claims, and stronger patents.

Notes

¹ No. 88-1814-PBS (D. Mass. Oct. 27, 1994).

² *Festo Corp. v. SMC Corp.*, 344 F.3d 1359, 68 U.S.P.Q. (BNA) 1321 (Fed. Cir. 2003).

³ 339 U.S. 605 (1950).

⁴ *Id.* at 610.

⁵ *Id.* at 607, 610.

⁶ *Id.* at 608, quoting *Sanitary Refrigerator Co. v. Winters*, 280 U.S. 30, 42 (1929) (often known as setting forth the "function, way, and result analyses") (*emphasis added*).

⁷ 294 U.S. 42 (1935).

⁸ Article 1, Section 8 of the U.S. Constitution provides in pertinent part, "The Congress shall have power ... [t]o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

⁹ 285 F.3d 1046 (Fed. Cir. 2002).

¹⁰ U.S. Patent No. 4,354,125.

¹¹ U.S. Patent No. B1 3,799,401.

¹² 35 U.S.C. § 112, para. 1 provides in pertinent part, "The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art ... to make and use the same."

¹³ U.S. Patent No. 4,354,125; U.S. Patent No. B1 3,799,401.

¹⁴ U.S. Patent No. 4,354,125.

¹⁵ *Supra* n.13.

¹⁶ See *Festo I*.

¹⁷ *Festo Corp. v. SMC Corp.*, 234 F.3d 558 (Fed. Cir. 2000).

¹⁸ See *id.* at 569 ("When 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').").

¹⁹ *Id.* at 566-67.

²⁰ *Id.* at 576.

²¹ *Festo Corp. v. SMC Corp.*, 535 U.S. 722, 741 (2002).

²² See *id.* at 736-37.

²³ *Id.* at 731.

²⁴ *Id.* at 735-36.

²⁵ *Id.* at 739-41.

²⁶ *Id.* at 740.

²⁷ *Id.* at 741.

²⁸ *Id.* at 738.

²⁹ *Id.* at 740.

³⁰ *Id.*

³¹ *Id.* at 1366.

³² *Id.*

³³ 535 U.S. 17 (1997) (finding that petitioner infringed upon respondent's patent and lower court failed to consider all of the requirements under DOE).

³⁴ 234 F.3d at 578.

³⁵ *Festo IX*, 344 F.3d at 1366, citing *Festo VIII*, 535 U.S. at 740.

³⁶ *Festo IX*, 344 F.3d at 1366-367 (citations omitted).

³⁷ *Id.* at 1367.

³⁸ *Id.*

³⁹ *Id.* at 1369 (citations omitted).

⁴⁰ See *J&J*, 238 F.3d at 1063-64 (Lourie J., concurring).

⁴¹ See *Glaxo Inc. v. Impax Labs. Inc.*, 220 F. Supp.2d 1089, 1095 (N.D. Cal. 2002).

⁴² *Festo IX*, 344 F.3d at 1373.

⁴³ 285 F.3d at 1054.

⁴⁴ 35 U.S.C. § 112, para. 6 provides that "[a]n element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof."

⁴⁵ *Festo VIII*, 535 U.S. at 736.

