

UPON REMAND FROM THE UNITED STATES SUPREME COURT

95-1066

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

FESTO CORPORATION,

Plaintiff-Appellee,

v.

SHOKETSU KINZOKU KOGYO KABUSHIKI CO., LTD.

a/k/a SMC CORPORATION, and SMC PNEUMATICS, INC.,

Defendants-Appellants.

Appeal from the United States District Court for the

District of Massachusetts, 88cv1814 (PBS)

Judge Patti B. Saris

IN BANC OPENING BRIEF OF DEFENDANTS-APPELLANTS
SMC CORP., ET AL.

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Certificate of Interest

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Pneumatics, Inc. certifies the following:

1. The full name of every party or amicus represented by me is: SMC Corporation and SMC Pneumatics, Inc.

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is: not applicable.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are: SMC Corporation.

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court are:

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I. Overview¹

The Supreme Court's decision in *Warner-Jenkinson* significantly restricted the doctrine of equivalents by redefining (1) the all-elements rule and (2) prosecution history estoppel. The Court made clear that the all-elements rule must be strictly enforced and cannot be "allowed such broad play as to eliminate [an] element in its entirety." With respect to prosecution history estoppel, the Court held that it bars the doctrine of equivalents (as to the amended element) unless the patentee can show that the change to the claim "had a purpose unrelated to patentability."

Warner-Jenkinson precludes any finding that either the Stoll or the Carroll patents in suit have been infringed.² As to the Stoll patent, its sole independent claim includes *two* separate elements, each of which (1) is not

¹ The history of this case includes a panel decision in 1995 (72 F.3d 857, 37 USPQ2d 1161) which was vacated by the Supreme Court in 1997 (117 S.Ct. 1240, 41 USPQ2d 1865) and a panel decision in 1999 (172 F.3d 1361, 50 USPQ2d 1385) which was vacated when the petition for rehearing *in banc* was granted.

² Despite the fact that both panel decisions focus primarily upon the Carroll patent, the Stoll patent was by far the more important of the two. SMC's briefs have always concentrated upon the Stoll patent. The Carroll patent was a less important "tag-along" patent since it (1) had expired prior to trial and (2) was subject to intervening rights as a result of its Festo-requested reexamination.

present in the SMC rodless cylinder and (2) was added by amendment to define over prior art cited by Festo. As to the Carroll patent, its sole independent claim includes an element which (1) is not present in the SMC rodless cylinder and (2) was added by amendment to define over prior art cited by Festo. Festo cannot show that any of these amendments were made for "purpose[s] unrelated to patentability." Indeed, Festo has admitted that why it amended the Stoll claims to require that the sleeve be made "of a magnetizable material" "is a mystery."

II. *The Supreme Court's Warner-Jenkinson Decision*

A. *All-Elements Rule*

In *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 117 S.Ct. 1040, 41 USPQ2d 1865 (1997), the Supreme Court significantly restricted the application of the doctrine of equivalents as a result of its "concern" that the doctrine was being used to circumvent and eliminate the effect of statutorily required patent claims.

We do, however, share the *concern* of the dissenters below 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*.

Id. at 1048-49; 1871; emphasis added.

The Supreme Court made clear that the "essential inquiry [is] does the accused product or process contain elements identical or equivalent to each claimed element of the patented invention," *id.* at 1044; 1867; and put an end to a patent applicant's ability to tell the PTO that his widget³ was patentable because it included element A, and then, in a subsequent infringement suit against an accused infringer whose widget did not include element A, argue that element A was unimportant and its omission was of no consequence.

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.*

Id. at 1049; 1871; emphasis added.

Indeed, the Supreme Court held that "a special vigilance" is mandatory "against allowing the concept of equivalence to eliminate

³ "1: Gadget. 2: An unnamed article considered for purposes of hypothetical example." *Webster's New Collegiate Dictionary* (1973).

completely any such [claim] elements" (*id.* at 1054; 1875); and specifically prohibited any "theory of equivalence [which] would entirely vitiate a particular claim element." *Id.* at 1054 n.8; 1875 n.8.

As set forth *infra*, Festo used this now rejected and forbidden use of the doctrine of equivalents to argue infringement. More particularly, Festo obtained the Stoll patent by asserting and specifically claiming that the Festo widget (a rodless cylinder) had element A (*at each end of the piston*, the *combination of both* a soft sealing ring and a hard guide ring) and B (magnetizable material in the sleeve); and then, in its infringement suit, argued exactly the opposite - that SMC's cylinder infringed even though both element A and element B were missing.

Similarly, Festo obtained the Carroll reexamination certificate by asserting and specifically claiming that the Festo widget (rodless cylinder) had element C (a sealing ring *at each end of the piston*) whereas, in its infringement suit, Festo argued exactly the opposite - that SMC's rodless cylinder infringed even though the claimed element C was missing.

B. *Prosecution History Estoppel*

The Supreme Court in *Warner-Jenkinson* also plainly and unequivocally put an end to the practice that permitted a patent applicant to limit his patent claim to induce the examiner to allow it and then, in a subsequent infringement suit where the accused widget did not include this limitation, argue that prosecution history estoppel should not bar a finding of infringement under the doctrine of equivalents because the prior art did not require him to make such a restrictive limitation.

To put an end to this practice of permitting the patentee to "take back" the claim limitation (or limitations) added by amendment to obtain allowance of his claim, the Supreme Court did two things. First, it made clear that a patentee is no longer permitted to argue in a subsequent infringement suit that the amendment he made was unnecessarily restrictive.

We do not suggest that, where a change is made to overcome an objection based on the prior art, a court is free to review the correctness of that objection when deciding whether to apply prosecution history estoppel. As petitioner rightly notes, *such concerns are properly addressed on direct appeal from the denial of a patent, and will not be revisited in an infringement action.*

Id. at 1051 n.7; 1872 n.7; emphasis added. What amendments are "necessary" to make the claim patentable over the prior art is an issue that the patentee must resolve with the patent examiner; once an amendment has been made, whether or not that amendment was required, is no longer an issue in a subsequent infringement suit.

Second, the Supreme Court established (a) an unequivocal presumption that, when a claim is amended during prosecution, prosecution history estoppel applies unless the patentee can show that the amendment to the claim *had a purpose unrelated to patentability*

Prosecution history estoppel continues to be available as a defense to infringement, but 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. *Where the patent-holder is unable to establish such a purpose, a court should presume that the purpose behind the required amendment is such that prosecution history estoppel would apply.*

id. at 1054;1876; emphasis added; and (b) that if prosecution history estoppel applies, it *bars* application of the doctrine of equivalents as to the amended element

Mindful that claims do indeed serve both a definitional and a notice function, we think the better rule is to place the burden on the patent-holder to establish the reason for an amendment required during patent prosecution. The court then would decide whether that reason is sufficient to overcome prosecution history estoppel as a *bar* to application of the doctrine of equivalents to the element added by that amendment. Where no explanation is established, however, the court should presume that the PTO had a substantial reason related to patentability for including the limiting element added by amendment. In those circumstances, prosecution history estoppel would *bar* the application of the doctrine equivalents as to that element.

Id. at 1051; 1873; emphasis added.

To like effect are both the Supreme Court's holding in *Exhibit Supply Co. v. Ace Patents Corp.*, 62 S.Ct. 513, 518, 52 USPQ2d 275, 279 (1942), cited by the Court in *Warner-Jenkinson, id.*, at 1049; 1872; and this Court's holding in *Warner-Jenkinson* upon remand.

In *Exhibit Supply*, the Supreme Court expressly held that when an applicant amended a claim to meet a PTO rejection, it thereby *abandoned* anything that was not literally within the scope of the amended element.

By striking that phrase ["carried by the table"] from the claim and substituting for it "embedded in the table" the applicant restricted his claim to

those combinations in which the conductor means, though carried on the table, is also embedded in it. By the amendment he recognized and emphasized the difference between the two phrases *and proclaimed his abandonment of all that is embraced in that difference*. [citations omitted] The difference which he thus proclaimed must be regarded as material, and *since the amendment operates as a disclaimer of that difference* it must be strictly construed against him. (emphasis added)⁴

In *Warner-Jenkinson* upon remand from the Supreme Court, this Court consistently held that, if the patentee cannot show that the amendment had a purpose unrelated to patentability, "prosecution history estoppel would bar the application of the doctrine of equivalents as to that element or claim limitation."

In the interest of placing "reasonable limits on the doctrine of equivalents," the Supreme Court created a presumption applicable in this case, that when a claim is amended, but the prosecution history does not reveal the reason for the change, it should be presumed that there was "a substantial reason related to patentability for including the limiting element added by amendment." *Id.* at 1051. In that event, *prosecution history estoppel would bar the application of the doctrine of equivalents as to that element (or claim*

⁴ *Exhibit Supply* is discussed in greater detail in response to this Court's question 3, *infra*.

limitation). *Id.* The Court held that placing this burden on the patentee furthers the definitional and notice functions of patent claims. *Id.*

Hilton Davis Chemical Co. v. Warner-Jenkinson Co., 114 F.3d 1161, 1163, 43 USPQ2d 1152, 1153 (Fed. Cir. 1997), emphasis added.

As discussed below in connection with the specific questions raised by this Court, there is no principled difference between an amendment that is "unexplained," and one that is voluntarily made by an applicant. In both, the *Warner-Jenkinson* presumption applies and, unless overcome, bars application of the doctrine of equivalents to the amended element.

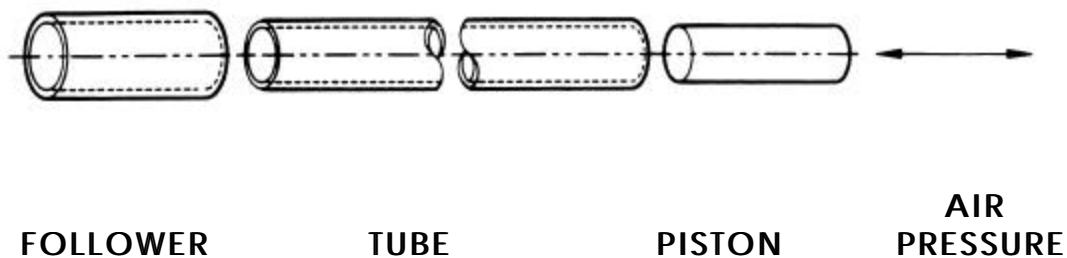
III. *Application of the Supreme Court's Warner-Jenkinson Decision to the Facts in the Case at Bar*

A. *Rodless Cylinders*⁵

A rodless cylinder is a common pneumatic industrial tool used primarily in factories and other work environments to move an article a short distance from one point to another. A rodless cylinder has three main components in the general shape of three concentric cylinders. First, there is an inner member (a "piston"). Second, there is a tube ("tube") in which

⁵ See SMC's opening brief (filed February 2, 1995) at 2-3. A8631-35.

the piston is moved either to the right or to the left under the force of air pressure. Third, there is an outer member (a "follower" or a "sleeve") which encircles the tube and which will move when the piston is moved (hence the term "follower") as a result of a magnetic attraction between the piston and the follower, both of which have magnets mounted therein for this purpose. The article to be moved is attached to the follower. Thus, a burst of air pressure at one end of the tube will move the piston - causing movement of the follower - causing movement of the article.

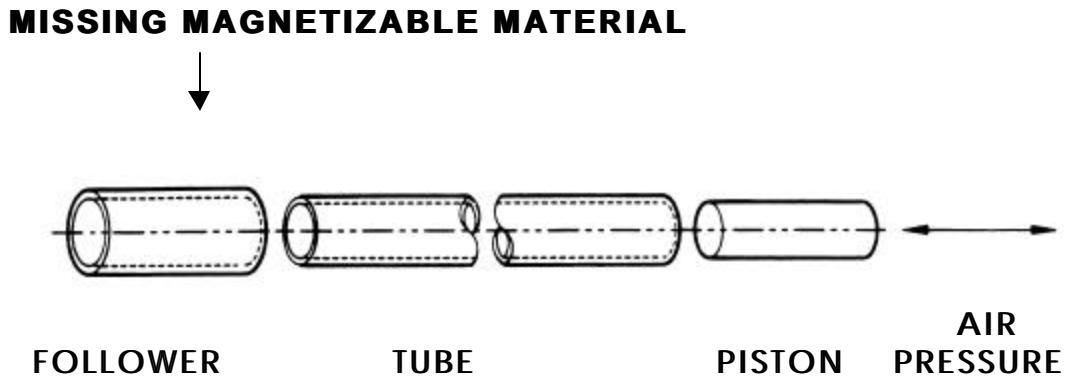


These rodless cylinders were described in the patent literature beginning in the early 1960s. A8631-35.

B. *All-Elements Rule*

1. *Stoll Patent*

a. *The Missing Claimed Magnetizable Material*⁶



The prior art cited to the PTO by Festo during prosecution of the Stoll patent disclosed, among other things, a rodless cylinder in which the sleeve was not described as made of a magnetizable material and, in fact, was described as made of a non-magnetizable material.⁷ The Stoll patent discloses that the outer covering or sleeve should be made of a magnetizable material to shield magnetic leakage fields in order to prevent undesirable braking forces.

⁶ See SMC's opening brief (filed February 2, 1995) at 5-8 and 20-23.

⁷ See SMC's opening brief upon remand from the Supreme Court (filed July 7, 1997) at 16-18, notes 24 and 25 and A8329-46, A22085-90 and A22111-16.

The counterpart of the piston body is a sleeve 30 *made of a magnetisable material to reduce magnetic leakage fields.*⁸ (emphasis added)

* * *

If the driven assembly [follower or sleeve] is provided with a sleeve made of a magnetisable material, which encircles the hollow cylindrical assembly of the magnet arrangement, *magnetic leakage fields in the vicinity of the driven assembly can be kept to a minimum. In this way, undesirable braking forces, which would otherwise be generated while piston and driven assembly pass magnetisable machine components, are avoided.*⁹ (emphasis added)

And the sole independent claim of the Stoll patent specifically recites "a cylindrical sleeve made of a magnetizable material."¹⁰

Festo conceded that the SMC sleeve was not made of a magnetizable material and did not assert literal infringement. It is thus undisputed that the SMC cylinder did not include this claimed element - magnetizable material.

⁸ See SMC's opening brief (filed February 2, 1995) at 5. A94.

⁹ See SMC's opening brief (filed February 2, 1995) at 6. A93.

¹⁰ A95. Also, see SMC's opening brief (filed February 2, 1995) at 7-8. A8227-28.

Festo's argument that the doctrine of equivalents may be invoked to cover SMC's sleeve of *non-magnetizable* material flies in the face of the Supreme Court's specific prohibition, *Warner-Jenkinson* (at 1054 n.8; 1875 n.8) of "a theory of equivalence [which] would entirely vitiate a particular claim element." In the Stoll patent specification, Festo made clear that the sleeve must be made of a magnetizable material to keep magnetic leakage fields to a minimum to avoid undesirable braking forces; and Festo's claim specifically states that the sleeve is made of such a material. To assert, as Festo does now, that the material of which the sleeve is made is unimportant, and that a *non-magnetizable* material and a *magnetizable* material are essentially the same, is contrary to the patent specification, and vitiates the *magnetizable material* element of the claim. The public is entitled to rely upon the statement in the Stoll patent that a *magnetizable* material is different, much better and certainly not equivalent; and consistent with *Warner-Jenkinson* Festo may not rely on the doctrine of equivalents to supply the claimed material that is indisputably missing.

Festo's contentions that it has not "vitiating" the missing magnetizable material are baseless.

Festo's first contention, that the magnetizable material claim element should be ignored since it was "unimportant," is wrong as a matter of law.¹¹ Neither the 1995 nor the 1999 panel decision discuss this argument and, presumably, it properly was not accepted.

Festo's second contention is also bogus. According to Festo, the alloy used in the sleeve of SMC's follower, although non-magnetizable and unable to prevent undesirable braking fields, nonetheless would have included certain *minute* magnetic impurities as a result of its manufacturing process and these *minute* magnetic impurities could shield *minute* magnetic fields. However, this argument utterly fails to deal with the fact that, even with such *minute* impurities, the SMC sleeve is still not made "of [the claimed] magnetisable material." Festo's expert conceded that the *minute* magnetizable impurities were not present in sufficient quantity to make the sleeve of a "magnetizable material" as required by Stoll claim 1 (A937-43);

¹¹ *Becton Dickinson and Co. v. C.R. Bard, Inc.*, 922 F.2d 792, 798 n.3, 17 USPQ2d 1097, 1101 n.3 (Fed. Cir. 1990) ("Our law requires the patentee to specify particularly what he claims to be new, and if he claims a combination of certain elements or parts, we cannot declare that any one of these elements is immaterial. The patentee makes them all material by the restricted form of his claim. We can only decide whether any part omitted by an alleged infringer is supplied by some other device or instrumentality which is its equivalent.").

and that any leakage fields small enough to be affected by *minute* impurities would not create undesirable braking forces.¹² This argument of Festo also was not mentioned in the 1999 panel decision, presumably because it also was unacceptable.

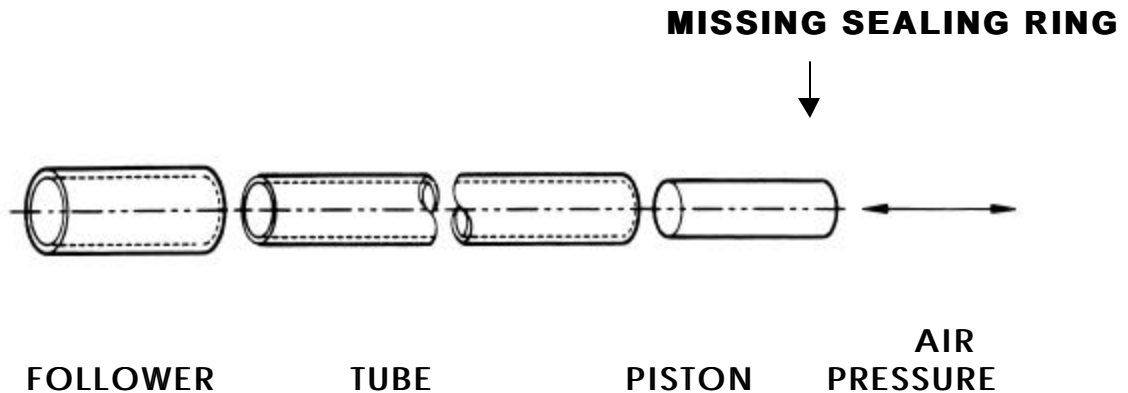
Festo's third attempt was even less legitimate. According to Festo, a sleeve with no magnetizable material supposedly is a 300% better shield than air (no sleeve at all). This is of no relevance whatsoever. SMC's rodless cylinder, like any other rodless cylinder, has a sleeve. What it does not have is a sleeve of magnetizable material, and the only proper comparison must be between a sleeve that *includes* magnetizable material and a sleeve, like SMC's, that *does not*. To argue, as Festo does, that the SMC sleeve infringes because it is a better shield than air is sophistry at its zenith. The Stoll patent does *not* say that a sleeve should be used because it is supposedly a 300% better shield than air; it says that a sleeve of *magnetizable material* should be used because it is a much better shield than is a sleeve that is *not magnetizable*.

¹² "Q. You don't get undesirable braking forces from minimal fields, do you? A. That's correct." A941.

Finally, the 1999 panel decision said that there was infringement since the "small gap" between the magnets of the piston and the magnets of the follower caused the magnetic flux to be "concentrated internally" with the result that any escaping flux would be "very small." Thus, according to the 1999 panel decision, there was no need to include magnetizable material to protect against this "very small" flux. By this twist of logic, SMC supposedly infringed because it had no need to employ the missing element of the claim. What this logic ignored is that the claimed element - the "magnetisable material" - was simply missing in the SMC device and, without it, there can be no infringement.

In short, each of Festo's four attempts to show that its theories of equivalence do not effectively eliminate the "magnetisable material" element of the claim fail. Each attempt was specifically prohibited by the Supreme Court's holding in *Warner-Jenkinson* that a court must reject as a matter of law any "theory of equivalence [which] would entirely vitiate a particular claim element." *Warner-Jenkinson* at 1054 n.8; 1875 n.8.

b. *The Missing Claimed Sealing Ring*¹³



Festo concedes that, in the prior art, there were rodless cylinders which had, at each end of the piston, a single ring which performed the functions (although, according to Festo, not too well) of sealing the piston, wiping the inner wall of the tube, and guiding the piston.

Prior art rodless cylinders incorporated a single ring on the piston which was used to not only maintain the separation between the piston and the inner wall surface of the tube but also to create a seal with the inner wall surface so that fluid pressure can build up within the tube on one side of the piston to move the piston.¹⁴

¹³ See SMC's opening brief (filed February 2, 1995) at 5-8 and 23-27.

¹⁴ See SMC's opening brief (filed February 2, 1995) at 6 and A4143.

However, and as Festo also recognized, this prior art single ring had certain significant disadvantages.

A more rigid or harder material used for the seal is desirable in order to maintain the separation between the piston and the inner wall surface of the tube. *However, when a more rigid or harder material is used for the seal, the sealing and wiping functions are not effectively obtained.* On the other hand, if a soft resilient material is used for the seal, it will conform well to the engaging surface of the inner wall of the cylinder tube and seal and wipe effectively; but, the magnetic force and free floating piston will overcome the soft material and the magnets will engage the tube wall and interfere with the reciprocal movement of the piston on the tube.¹⁵ (emphasis added)

Thus, in the Stoll patent, Festo disclosed, and claimed, a specific way to improve the prior art - i.e., instead of a single ring at each end of the piston, Stoll disclosed *and claimed* that, at each end of the piston, there should be the *combination* of both (1) a soft sealing ring and (2) a hard guide ring ("a soft/hard *combination*"). The advantage of this new element was specifically described in the Stoll specification.

the sealing means of the piston comprise sealing rings and the piston is provided with sliding guide rings near the sealing rings. The advantage of this

¹⁵ See SMC's opening brief (filed February 2, 1995) at 6 and A4143.

is that a relatively soft material can be used for the piston sealing rings, which no longer have to perform any significant guiding functions.¹⁶

By way of contrast, the SMC rodless cylinder accused of infringement is missing such a *combination* at each end of the piston. At one end, there is only a too hard guide ring. Since sole independent claim 1 of the Stoll patent specifically requires that the *combination* be present at each end of the piston, the SMC rodless cylinder is missing a claim element and, as Festo's own description of the need for a *combination* sealing ring/guide ring at each end makes clear, its function.¹⁷

In *Warner-Jenkinson* (at 1054 n.8; 1875 n.8), the Supreme Court specifically prohibited "a theory of equivalence [which] would entirely vitiate a particular claim element." In the Stoll patent specification, as noted above, Festo asserted that there must be both a sealing ring and a guide ring at each end of the piston. For Festo to assert, as it does now, that nothing but a too hard guide ring is the same as the claimed *combination* of both a sealing ring and a guide ring, vitiates the claimed *combination* at each end

¹⁶ See SMC's opening brief (filed February 2, 1995) at 6 and A93.

¹⁷ See SMC's opening brief (filed February 2, 1995) at 7-8. A8227-28.

of the piston. The public is entitled to rely upon Festo's assertion in the Stoll patent that the *combination* sealing ring and guide ring was different, much better and *not equivalent* to the too hard guide ring alone; and the Supreme Court made clear that Festo may not rely on the doctrine of equivalents to supply the *combination* element that is missing.¹⁸

Even a rudimentary analysis reveals the baselessness of Festo's argument that it has not "vitiating" the missing combination. As noted above, according to Festo, the prior art single ring was either too soft to guide or too hard to seal. Accordingly, Festo claimed the *combination* of both a sealing ring and a guide ring at each end of the piston - the sealing

¹⁸ *Warner-Jenkinson* at 1046; 1869 ("[I]t is the claim that defines the invention and gives notice to the public of the limits of the patent monopoly."); *Dawn Equipment Co. v. Kentucky Farms Inc.*, 140 F.3d 1009, 1016, 46 USPQ2d 1109, 1114 (Fed. Cir. 1998) ("There is damning evidence within the text of the '282 patent itself that the two mechanisms do not operate in substantially the same way. Specifically, the patent strongly suggests, if not teaches, that they are not equivalent."); *Vehicular Tech. Corp. v. Titan Wheel Intern., Inc.*, 141 F.3d 1084, 1091, 46 USPQ2d 1257, 1263 (Fed. Cir. 1998) (Patentee who asserted in patent that back-up spring in dual spring assembly was important cannot assert in later infringement suit that it is unimportant.); *Alpex Computer Corp. v. Nintendo Co., Ltd.*, 102 F.3d 1214, 1221, 40 USPQ2d 1667, 1673 (Fed. Cir. 1996), *cert. denied*, 117 S.Ct. 2480 (1997) ("If an applicant specifically distinguishes a structure from what is claimed during prosecution, the applicant will be estopped from asserting a scope for the same claim that covers that structure.").

ring to prevent dirt from entering between the tube and the piston, and the guide ring to accurately position the piston within the tube. The *combination* was needed (and claimed) at both ends of the piston since, among other things, it obviously would not suffice to exclude dirt at one end of the piston if dirt was permitted to enter at the other end of the piston.

Festo's contention that the claimed *combination* at one end of the piston is not "missing" because SMC uses a single two-way seal, i.e., a single seal at one end of the piston that seals against air flow around the piston in either direction, is baseless. As noted above, and testified to by Festo, a principal reason to have the combination of a sealing ring and a guide ring at each end of the piston is to exclude dirt at each end of the piston. Stoll himself testified that a two-way seal located at *one end* of the piston cannot exclude dirt at the *other end* of the piston, and that Festo always uses two seals, one at each end;¹⁹ and the Stoll patent teaches that a

¹⁹ Q. What will happen if I only use one sealing means?

A. Then on the side where there's no seal, dirt could come in. Attracted by the magnet.

Q. To your knowledge, has Festo ever made a rodless cylinder with only one sealing means?

A. Always both sides, always two. One on each side or one on each end. A5066-67.

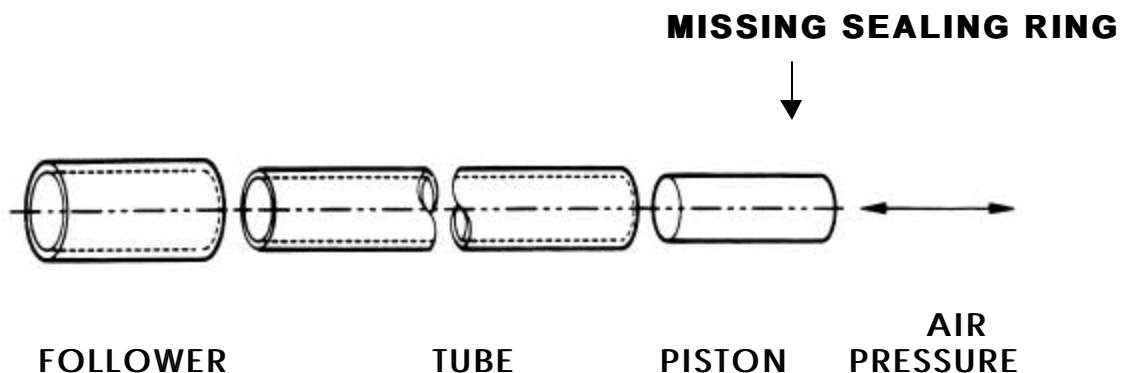
guide ring *by itself* will not satisfactorily seal and wipe. Thus, the claimed *combination* and its function at each end of the piston is simply not present in the SMC device.²⁰

Festo's argument, that SMC's single seal at one end is "equivalent," effectively eliminates the claim requirement that there be the *combination* of both a sealing ring and a guide ring at each end of the piston and violates *Warner-Jenkinson's* command forbidding any "theory of equivalence [which] would entirely vitiate a particular claim element" (1054 n.8; 1875 n.8); it is also directly contrary to the Stoll patent upon which SMC and the public are entitled to rely.

²⁰ The fact that the too hard guide ring may perform some *unsatisfactory* wiping and sealing is of no moment since, according to Festo, the too hard guide ring *by itself* does not seal or wipe well enough to be satisfactory.

2. Carroll Patent

a. *The Missing Claimed Sealing Ring*²¹



As issued in 1973, the sole independent claim of the Carroll patent did not include element C (a sealing ring at each end of the piston). Some fifteen years later in 1988, Festo requested reexamination on the basis of a prior art Festo German patent. In this reexamination, Festo cancelled claim 1 and submitted therefor new claim 9 which specifically recited element C. Festo then argued to the examiner that new claim 9, with the requirement for a sealing ring at each end of the piston to effect a fluid-tight seal, defined "with particularity" over the prior art Festo patent. A8153.²²

²¹ See SMC's opening brief (filed February 2, 1995) at 3-5 and 46-47. As noted therein, since equivalents infringement was determined on summary judgment, any factual issue had to be resolved in SMC's favor.

²² Also, see SMC's opening brief (filed February 2, 1995) at 4 and A8159.

As noted *supra*, at one end of its piston, the one-seal SMC rodless cylinder accused of infringement has no sealing ring, only a too hard guide ring. Thus, the SMC rodless cylinder indisputably is missing a claimed element. Further, Festo itself has made clear that the "two seal" limitation is important. As testified by Festo's Kurt Stoll, if only one seal is used, dirt can come in on the side where there is no seal resulting in detrimental operation.²³

The issue of doctrine of equivalents infringement with respect to the Carroll patent was decided against SMC on summary judgment, where each factual issue should have been decided in SMC's favor.²⁴ In fact, judgment

²³ See note 19, *supra*. The district court attempted to distinguish this testimony (A24-25) by saying that Stoll was supposedly referring to his patent and not to the Carroll patent. However, this common sense and unrefutable statement is applicable to rodless cylinders, not just to patents. SMC's opening brief before remand (at 46-47) and reply brief (at 21-22).

²⁴ Contrary to the 1999 panel decision (172 F.3d at 1377, 50 USPQ2d at 1396) that SMC supposedly did not dispute that the wiping function was performed by the hard guide ring, SMC disputed this at every opportunity and, as Festo asserted, a too hard guide ring can not satisfactorily perform the wiping (or sealing) function performed by the claimed soft/hard *combination* of a sealing ring and a guide ring. See page 18, *supra*, ("the sealing and wiping functions are not effectively obtained").

The 1999 panel decision (172 F.3d at 1377-78, 50 USPQ2d at 1396)

implies that the too hard (to seal) guide ring was the equivalent of the claimed soft/hard *combination* because the guide ring performed a back-up function. However, the guide ring cannot be *non-equivalent* for patentability and

should have been entered for SMC. There can be no genuine issue as to any material fact since, as Stoll testified, the SMC device has only one seal, and *one* two-way seal at one end of the piston is not the equivalent of two seals, one at each end of the piston.²⁵

C. Prosecution History Estoppel

1. Stoll Patent²⁶

Sole independent claim 1 of the Stoll application as filed did not include element A (the soft/hard *combination* of a guide ring and a sealing ring at each end of the piston).²⁷ Nor did it include element B (the

equivalent for infringement. Further, the 1999 panel decision is contrary to this Court's prior decision in *Vehicular, supra* (at 1091; 1263) (one spring not the equivalent of two since patent asserted the contrary).

²⁵ There can be no claimed "fluid-tight seal with the cylinder [tube]" (1999 panel decision, 172 F.3d at 1370, 50 USPQ2d at 1390) with only *one* seal. A seal at each end of the piston *prevents* fluid contact with the piston. No seal at one end of the piston *permits* fluid to come into contact with the piston.

²⁶ See SMC's opening brief (filed February 2, 1995) at 5-8 and 20-23.

²⁷ See SMC's opening brief (filed February 2, 1995) at 6-7 and A8216. This

claim merely recited "a piston which is slidable in said tubular part and which has sealing means at each end"

magnetizable material for the sleeve).²⁸ However, dependent claim 4 recited element A²⁹ and dependent claim 8 recited element B.³⁰

In its response to the first Office action,³¹ Festo submitted a new independent claim (claim 13, later claim 1 of the patent) which included element A from dependent claim 4 and element B from dependent claim 8.³² Dependent claims 4 and 8 were then cancelled. Festo then cited prior art, two earlier Festo German patents, and asserted that "the claims *now present* in this application" (emphasis added) made these references cited by Festo "obviously clearly distinguishable."

²⁸ See SMC's opening brief (filed February 2, 1995) at 6-7 and A8216. This claim merely recited "a driven assembly [follower]"

²⁹ Dependent claim 4 recited that "the sealing means of the piston comprise sealing rings and the piston is provided with sliding guide rings near the sealing rings." A8217.

³⁰ Dependent claim 8 recited that "the driven assembly [follower] is provided with a sleeve made of a magnetizable material." A8217.

³¹ There was no §112, ¶2 rejection of claim 1. A8222-24. Further, a §112, ¶2 rejection would not necessarily be "unrelated to patentability."

³² See SMC's opening brief (filed February 2, 1995) at 7-8 and A8227-28.

These references are *obviously clearly distinguishable* over the subject matter of the claims *now present* in this application. Accordingly, further comment about the subject matter of these references is believed unnecessary. It is clear that neither of these two references discloses the use of structure [recited in newly submitted claim 13] preventing the interference by impurities located inside the tube and on the outside of the tube while the arrangement is moved along the tube.³³ (emphasis added)

Neither of these two earlier Festo German patents disclosed element A (the soft/hard *combination* of a sealing ring and a guide ring at each end of the piston) or element B (the magnetizable material for the sleeve). Rather, these references only disclosed the prior art "one ring at each end of the piston" and the prior art sleeve that did not include magnetizable material.³⁴ The patent examiner accepted this representation, claim 13 was allowed and the patent issued.

³³ See SMC's opening brief (filed February 2, 1995) at 8 and A8229-30.

³⁴ See SMC's opening brief upon remand from the Supreme Court (filed July 7, 1997) at 16-18, notes 24 and 25 and A8329-46, A22085-90 and A22111-16.

a. *The Amendment to Add the Magnetizable
Material from Dependent Claim 8*

As noted above, original claim 1 required a sleeve (which was shown in the prior art cited to the PTO by Festo), but did not recite that the sleeve was made of magnetizable material (a feature not shown in the then uncited art).

Festo tried to deal with the daunting problem that the SMC rodless cylinder was like the prior art, i.e., it did not include this magnetizable material, by asserting that Festo should not be bound by this claim limitation since, supposedly, it was made by Festo's attorney without Festo's specific approval and it was a "mystery" as to why Festo's attorney added this limitation. Thus, Festo asserted

there was no reason for [Festo's] Dr. Stoll to include a gratuitous recitation such as magnetizable sleeve material in his broadest claim, ... He never intended to do so and it should not have been done. ... The prior art does not require it and Dr. Stoll did not choose to include it. It was mistakenly included by the attorney prosecuting the application before the [PTO] without consultation with the inventor. ... It certainly does not represent the inventor's wishes and he should not be bound by it. SA22518.

Affirming the judgment below, both panel decisions cited with approval the district court's decision refusing to enter the summary judgment of non-infringement recommended by the special master (after a three week trial) because it was a "mystery" as to why Festo's attorney added this limitation.³⁵

These panel decisions erred. If, as Festo asserts, "the reason for [the] amendment" (*Warner-Jenkinson* at 1051; 1873) was a "mystery," the *Warner-Jenkinson* presumption is indisputably applicable; and it "completely 'bars' the application of the doctrine of equivalents as to the amended limitation." *Sextant Avionique v. Analog Devices Inc.*, 172 F.3d 817, 832, 49 USPQ2d 1865, 1875 (Fed. Cir. 1999) ("in circumstances in which the *Warner-Jenkinson* presumption is applicable, i.e., where the reason for an amendment is unclear from an analysis of the prosecution history record, and unrebutted by the patentee, the prosecution history estoppel arising therefrom is total and completely 'bars' the application of the doctrine of equivalents as to the amended limitation.") Having made the amendment, simultaneously with its citation of prior art that showed a

³⁵ 172 F.3d at 1380, 50 USPQ2d at 1398; 72 F.3d at 864, 37 USPQ2d at 1165.

sleeve within original claim 1 but not a sleeve made "of a magnetisable material" (*see Litton Systems, Inc. v. Honeywell, Inc.*, 140 F.3d 1449, 1462, 46 USPQ2d 1321, 1330 (Fed. Cir. 1998)), it is clear that Festo can not possibly rebut the presumption that the amendment was made for reasons related to patentability.

The 1999 panel decision appears to hold that there was no prosecution history estoppel since the "magnetizable material" amendment to the claim was not accompanied by a specific argument describing the amendment. However, such a holding would ignore both the Supreme Court's holding in *Warner-Jenkinson* that an unexplained (e.g., without argument) amendment presumptively creates an estoppel; and this court's own decisions holding that both (1) an argument without amendment and (2) an amendment without argument can be the basis for prosecution history estoppel. As held in *Litton, supra*, at 1462; 1330;

As a basic proposition, the standard for determining whether subject matter has been relinquished is whether one of ordinary skill in the art would objectively conclude from the prosecution history that an applicant surrendered it. [citation omitted] As noted earlier, either amendments or arguments made by an applicant may be the basis for this conclusion.

Further, as recently held in *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 98-1596, 99-1276 at 10 (Fed. Cir. September 15, 1999),

Arguments made during the prosecution of a patent application are given the same weight as claim amendments. *See, e.g., Standard Oil*, 774 F.2d at 452, 227 USPQ at 296 ("[The prosecution history includes] all express representations made by or on behalf of the applicant to the examiner to induce a patent grant. ... Such representations include amendments to the claims and arguments made to convince the examiner. ..."). Because it is the totality of the prosecution history that must be assessed, not the individual segments of the presentation made to the Patent and Trademark Office by the applicant, it is irrelevant whether Elkay relinquished this potential claim construction in an amendment to the claim or in an argument to overcome or distinguish a reference.

The 1999 panel decision also sought to distinguish between a "voluntary" amendment and an amendment made in response to a rejection. However, there is no principled difference between the two; and there is in particular no difference between an amendment which is "voluntary" and one that is for some other reason "unexplained." Under *Warner-Jenkinson*, the only question is whether the amendment was made for a reason "related to patentability," and, if that is unclear, whether the presumption that it was made for such a reason can be successfully rebutted.

When the amendment is specifically required by an examiner, or responds to a specific prior art rejection by the examiner, it is clear that the amendment was made for reasons "related to patentability" and no further

inquiry is required or permitted. When reasons for the amendment are less clear, e.g., the amendment is "voluntary" or is in some way otherwise "unexplained," *Warner-Jenkinson* permits the patentee to avoid prosecution history estoppel *but only* if he can show that the amendment, in fact, "had a purpose unrelated to patentability."

However, whenever the reason for the amendment may be unclear, e.g., when the amendment is "voluntary" or "unexplained," the burden is on the patentee. Under *Warner-Jenkinson*, the only possible difference between the amendment of a claim to distinguish over prior art *cited by the examiner* and the amendment of a claim to distinguish over prior art *cited by the patent applicant* lies in whether the patentee will be able to carry his burden. If he cannot, as *Festo* here cannot, the presumption carries on, and creates prosecution history estoppel.

Finally, an examiner will consider an amendment, and presumably any prior art submitted with it, when determining whether to allow a claim, no matter what reasons the applicant actually had in making the amendment, i.e., whether it was a "preemptive strike" or otherwise.³⁶ "[T]he courts and

³⁶ *Litton, supra*, at 1461; 1330 ("without evidence to the contrary, an examiner generally should presume that a claim recites what the applicant regards as his invention.")

the public may rely on it as well." As held in *Ekchian v. Home Depot, Inc.*,
104 F.3d 1299, 1303-04, 41 USPQ2d 1364, 1368 (Fed. Cir. 1997),

An IDS is part of the prosecution history on which the examiner, the courts, and the public are entitled to rely. *Ekchian* distinguished his invention from the submitted prior art as a kind of preemptive strike against a potential rejection. He intended his statement to be relied on. It is reasonable to infer, absent an indication to the contrary, that an examiner will consider an IDS when determining whether to allow the claims; the courts and the public may rely on it as well.

Similarly, as held in *Litton, supra*, at 1462; 1331;

Contrary to the suggestions in the dissenting opinion, it is not necessary that a reference be specifically cited by the examiner as the reason for a rejection in order for it to give rise to an estoppel. Arguments made by an applicant in an information disclosure statement or otherwise during prosecution may form the basis of an estoppel without regard to whether the argument

was made in response to a rejection or the prior art was cited by the examiner. [citations omitted].

The rights of the public, competitors and the courts to rely on the "magnetisable material" amendment is particularly clear here. Before the amendment was made, the Stoll patent claims covered any sleeve, regardless of the material of which it was made. Then, having "discovered" prior art (two prior Festo German patents) that showed that sleeves made of "non-magnetisable" material were old, Festo made the prior art showing "non-magnetisable" sleeves part of the public record, and simultaneously amended its claims to limit them to a material that was different, i.e., that was "magnetisable." By making this amendment, Festo *disclaimed* the difference between a sleeve that *included* magnetizable material and one that *did not*, *Exhibit Supply, supra*, at 518; 279; and Festo is barred from resort to the doctrine of equivalents as to this magnetizable material. *Warner-Jenkinson, id.* And, as this Court's decisions in *Ekchian, supra*, and *Litton, supra*, make clear, the public, including competitors like SMC, would plainly understand from the public prosecution record that Festo had "surrendered" any device in which the sleeve was made of a material that was the same as, or only trivially different from, the "non-magnetisable" material in the sleeve

shown in the prior art that Festo itself cited to the PTO when it limited its claim.

b. *The Amendment to Add the Sealing Ring/Guide Ring Combination at Each End of the Piston from Dependent Claim 4*

As noted above, after the first Office action, Festo cited two items of prior art, cancelled claim 1 (which required only a single ring at each end of the piston), and substituted a new independent claim that required, in addition to the "magnetisable material," the soft/hard *combination* of a sealing ring and a guide ring at each end of the piston. With this amendment, Festo argued that "neither of these two references [cited by Festo] discloses the use of structure [recited in the newly submitted independent claim] preventing the interference by impurities located inside the tube and on the outside of the tube while the arrangement is moved along the tube." A8230.

Since the prior art cited to the PTO showed the "single ring at each end of the piston," but not the soft/hard *combination* of the sealing ring and guide ring at each end of the piston required by the amended claim, Festo cannot rebut the presumption that this amendment was unrelated to patentability. Therefore, prosecution history estoppel is applicable, and *bars*

any argument that the too hard guide ring *by itself* is the equivalent of the sealing ring/guide ring *combination*.³⁷

Further, since Festo specifically cancelled claim 1 which required only a single ring at each end of the piston in favor of a new independent claim which required the *combination* at each end of the piston (from dependent claim 4), a competitor reasonably would have concluded that Festo *surrendered* or *relinquished* the difference therebetween, i.e., the *combination* rather than a too hard guide ring alone or a too soft sealing ring alone. *Mark I Marketing Corp. v. R.R. Donnelley & Sons Co.*, 66 F.3d 285, 291, 36 USPQ2d 1095, 1100 (Fed. Cir. 1995), *cert. denied*, 116 S.Ct. 917 (1996) ("The standard for determining whether particular subject matter was relinquished is an objective one that depends on what a competitor reasonably would conclude from the patent's prosecution history.").

With this amendment, Festo *also disclaimed* the difference between having simply a single ring and having the sealing ring/guide ring combination at each end of the piston. *Exhibit Supply, supra*, at 518; 279.

³⁷ The 1999 panel decision remanded this issue for consideration by the district court. However, *Warner-Jenkinson* mandates a holding of non-infringement as a matter of law.

As with the amendment that added the "magnetisable material" element, there is no principled difference between Festo's "preemptive strike" and the "unexplained" amendment in *Warner Jenkinson*; and the *Warner-Jenkinson* presumption, here unrebuttable, applies.

Finally, this Court's decisions in *Ekchian, supra*, and *Litton, supra*, make clear that the public, including competitors like SMC, would plainly understand from the public prosecution record, and are entitled to rely on the fact that Festo "surrendered" any rodless cylinder in which, at either end of the piston, there was only a single ring. Original claim 1 required only a single sealing ring (at each end). Festo then cited prior art which showed a single sealing ring (at each end), amended its claim to require the two ring *combination* (at each end) and asserted that a single sealing ring (at either end) was *deficient, inferior* and *not equivalent*. By so doing, Festo *disclaimed*, and the public and competitors reviewing the file history would have understood Festo to have *surrendered*, any rodless cylinder having only a single ring (at either end).

2. *Carroll Patent*³⁸

a. *The Amendment to Add the Sealing Ring at Each End of the Piston*

As issued in 1973, the sole independent claim of the Carroll patent did not include element C (a sealing ring at each end of the piston). Some fifteen years later in 1988, Festo requested reexamination on the basis of a prior Festo German patent. In this reexamination, Festo cancelled claim 1 and submitted therefor new claim 9 which specifically recited element C. Festo then argued to the examiner that "it is respectfully urged that the structure now set forth *with particularity* in claim 9 is not found in the art of record or in [the cited earlier Festo German patent]."³⁹ Emphasis added.

One of these limitations set forth *with particularity* was a sealing ring at each end of the piston - "a pair of resilient sealing rings situated near opposite axial ends of the central mounting member [piston] and engaging

³⁸ See SMC's opening brief (filed February 2, 1995) at 3-5 and 46-47. As noted therein, since equivalents infringement was determined on summary judgment, all factual issues had to be resolved in SMC's favor.

³⁹ See SMC's opening brief (filed February 2, 1995) at 4 and A8153.

the cylinder [tube] to effect a fluid-tight seal therewith."⁴⁰ Claim 9 was then allowed by the examiner and a reexamination certificate was issued.

Festo's purpose in amending claim 1 to require a sealing ring at each end of the piston is not clear. The prior art (the earlier Festo German patent) cited by Festo included a single ring at each end of the piston.⁴¹ Further, as noted in the 1999 panel decision, the examiner did not include this requirement as one of his reasons for allowing the application. However, since Festo specifically cancelled claim 1 which did not require a sealing ring at each end of the piston in favor of a new independent claim which included this requirement in order to claim the Festo invention *with particularity*, the only reasonable conclusion is that this change was made to secure the patentability of the amended claim.

⁴⁰ See SMC's opening brief (filed February 2, 1995) at 4 and A8152.

⁴¹ However, claim 9 was a *combination* claim and the issue for patentability in the PTO was, not whether a particular element was in the prior art, but whether the *combination* was anticipated by or obvious in view of the prior art.

Under these circumstances,⁴² a competitor reasonably would have concluded that Festo *surrendered* or *relinquished* the difference between claim 1 and newly submitted claim 9, i.e., the requirement for a sealing ring at each end of the piston. *Mark I, supra*. Further, even if the purpose of the amendment is not clear, the *Warner-Jenkinson* presumption plainly applies and the amendment completely bars any application of the doctrine of equivalents. *Sextant, supra*, at 832; 1875.

IV. *Questions Posed by the Court*

Introduction

The answers to the questions posed by the Court are mandated by the Supreme Court's solution to the problem it confronted in *Warner-Jenkinson*. In *Warner-Jenkinson*, the defendant asserted that the doctrine of equivalents should be abolished since it is in irreconcilable conflict with the statutory requirement that the patented invention be defined by claims so that the public can be aware of what it can and what it cannot do. The plaintiff, on the other hand, asserted that all was well and good with the doctrine of

⁴² Before reexamination, Festo's claim *did not require* a sealing ring at either end of the piston. After reexamination, Festo's claim *required* a sealing ring at each end of the piston.

equivalents and it should not be disturbed by the Supreme Court. The Supreme Court did not accept either view. However, the middle ground chosen by the Court was far closer to the defendant's view than to the plaintiff's. Although the Court declined to abolish the doctrine of equivalents, it stated in no uncertain terms that it must be strictly limited.⁴³ It did this in two ways. First, it demanded rigorous enforcement of the all-elements rule.⁴⁴ Second, it held that prosecution history estoppel *bars* the doctrine of equivalents and that prosecution history estoppel arises from an amendment unless the patentee can prove that the amendment had no purpose relating to patentability.⁴⁵

⁴³ "We do, however, share the *concern* of the dissenters below 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." *Warner-Jenkinson, supra*, at 1048-49; 1871; emphasis added.

⁴⁴ "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.*" *Id.* at 1049; 1871; emphasis added.

⁴⁵ If the patent owner is unable to establish that the amendment *had a purpose unrelated to patentability*, prosecution history estoppel bars application of the doctrine of equivalents. *Id.* at 1051; 1873; emphasis added.

Question 1

For the purposes of determining whether an amendment to a claim creates prosecution history estoppel, is "a substantial reason related to patentability," *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 33 (1997), limited to those amendments made to overcome prior art under §102 and §103, or does "patentability" mean any reason affecting the issuance of a patent?

Initially, we note that this question is not presented by the case at bar.

The amendments made by Festo clearly were for "substantial reason[s] related to patentability."

Turning to the question itself, the first part of this question inquires whether anything other than an amendment made to overcome prior art under §102 and §103 is immune from the requirements laid down by the Supreme Court in *Warner-Jenkinson*. The answer to this question is no.

Whether a claim is properly patentable depends on many things other than the scope of the prior art. An applicant may take positions, with or without an accompanying amendment, from which a competitor would reasonably conclude that subject matter beyond the scope of the amendment

or argument had been disclaimed or otherwise abandoned, even though neither the argument nor the amendment involved sections 102 or 103.⁴⁶

As held in *Litton, supra*, at 1458; 1327; emphasis added,

Although not automatically erecting an estoppel, an amendment made for reasons other than patentability may still give rise to an estoppel.

* * *

Estoppel by clear and unmistakable surrender without claim amendments may arise *even when the arguments to the examiner were not necessary to distinguish prior art.* [citation omitted]

* * *

By logical extension, if an applicant makes an amendment *unrelated to patentability* which evinces an unmistakable surrender, that action will preclude recapture of the surrendered subject matter under the doctrine of equivalents.

This question also appears to inquire whether there is any amendment to a claim that will not create prosecution history estoppel. This cannot be answered without further specificity.

⁴⁶ In the case at bar, as noted above, the amendments to the Stoll and Carroll patent claims were made in conjunction with prior art (§102 and §103) cited by Festo.

If an amendment is made for a "reason related to patentability," prosecution history estoppel plainly exists; *Warner-Jenkinson* permits no other conclusion. If, however, an amendment was made for a different reason, there may be a circumstance in which no prosecution history estoppel will arise *but only* from aspects of the amendment that were wholly unrelated to patentability.

On the other hand, prosecution history estoppel can arise even in the absence of any amendment; *see Texas Instruments, Inc. v. United States Int'l Trade Comm'n*, 988 F.2d 1165, 1174, 26 USPQ2d 1018, 1025 (Fed. Cir. 1993) (explaining that "[a]mendment of a claim in light of a prior art reference, however is not the *sine qua non* to establish prosecution history estoppel. Unmistakable assertions made by the applicant to the Patent and Trademark Office (PTO) in support of patentability, whether or not required to secure allowance of the claim, also may operate to preclude the patentee from asserting equivalency between a limitation of the claim and a substituted structure or process step."). Also, *see Hoganas AB v. Dresser Indus., Inc.*, 9 F.3d 948, 952-53, 28 USPQ2d 1936, 1940 (Fed. Cir. 1993) (affirming trial court's application of estoppel based on argument made (without amendment) during prosecution to distinguish prior art reference where "a reasonable competitor could have concluded, from a reading of the

prosecution history, that the examiner relied on this distinction in allowing the claims, and thus, that [the patentee] had given up coverage of subject matter incorporating this distinction."). In addition, *see Litton, supra*, at 1462; 1331 (disagreeing with dissent's position "that a reference [must] be specifically cited by the examiner as the reason for a rejection in order for it to give rise to an estoppel" and explaining that "[a]rguments made by an applicant in an information disclosure statement or otherwise during prosecution may form the basis of an estoppel without regard to whether the argument was made in response to a rejection or the prior art was cited by the examiner. ...") (citations omitted).

Question 2

Under *Warner-Jenkinson*, should a "voluntary" claim amendment - one not required by the examiner or made in response to a rejection by an examiner for a stated reason - create prosecution history estoppel?

The answer to this question is yes. There is no principled difference between a "preemptive strike" in which an applicant makes an amendment in view of prior art cited by the applicant, and an applicant's response to an examiner's citation of the same prior art.

As held in *Ekchian, supra*, at 1303; 1368 ("An IDS [Information Disclosure Statement] is part of the prosecution history on which the

examiner, the courts, and the public are entitled to rely. Ekchian distinguished his invention from the submitted prior art as a kind of preemptive strike against a potential rejection. He intended his statement to be relied on. It is reasonable to infer, absent an indication to the contrary, that an examiner will consider an IDS when determining whether to allow the claims; the courts and the public may rely on it as well.")

Further, as held in *Litton, supra*, at 1462; 1331 ("Contrary to the suggestions in the dissenting opinion, it is not necessary that a reference be specifically cited by the examiner as the reason for a rejection in order for it to give rise to an estoppel. Arguments made by an applicant in an information disclosure statement or otherwise during prosecution may form the basis of an estoppel without regard to whether the argument was made in response to a rejection or the prior art was cited by the examiner. [citations omitted]").

Under *Warner-Jenkinson*, the fundamental presumption is that amendments are made for reasons related to patentability and thus, create prosecution history estoppel; and the only remaining question is whether the presumption can be successfully rebutted. The existence of the presumption, and what flows from it, does not depend on whether the amendment was "required," "voluntary" or "unexplained." Although perhaps a patentee may in some circumstance be able to rebut the presumption if the amendment was "voluntary" or "unexplained"; under *Warner-Jenkinson*, a "voluntary" or otherwise "unexplained" amendment plainly creates prosecution history estoppel unless it is successfully rebutted.

Moreover, it is clear that the effect that an amendment has on an examiner, and the conclusion that a competitor would reach from it, does not depend on whether the amendment was "required," "voluntary" or "unexplained." No matter why an amendment was made, the examiner will rely upon the amendment, and the courts, competitors and the public may rely on it as well.

To give the patent applicant a "free pass" with respect to a "voluntary" amendment would be no different than permitting the applicant

to avoid the effect of an amendment that is "required" or "unexplained."

Warner-Jenkinson is clear - a patent applicant, as in the case at bar, may not amend an element of his claim to induce the examiner to allow the claim and then, in a subsequent infringement suit, change his position 180° to try to cover under the doctrine of equivalents an accused device that does not include the amended element.

Question 3

If a claim amendment creates prosecution history estoppel, under *Warner-Jenkinson* what range of equivalents, if any, is available under the doctrine of equivalents for the claim element so amended?

Introduction

In *Sextant, supra*, a panel of this court held that an "unexplained" amendment of a claim element *barred* any resort to the doctrine of equivalents with respect to that element unless the patentee could establish that the amendment was made for reasons unrelated to patentability. In *Litton, supra*, another panel of this court held that an amendment to a claim element made for reasons related to patentability *barred* any resort to the doctrine of equivalents that would permit the amended element to encompass a corresponding element that was the same, or only trivially different from,

the prior art element before the PTO. Both holdings preclude any finding of infringement here.

The *Litton* panel further held (at 1462; 1330) that an assertion of non-equivalence precludes recapture of that subject matter.

In addition, as noted earlier, an applicant's arguments may constitute a clear and unmistakable surrender of subject matter. Such arguments preclude recapture of that subject matter. *See Texas Instruments*, 988 F.2d at 1174-75 (holding that applicants had clearly represented that "same-side gating" did not work and could not be asserted as an equivalent). As noted above, this type of estoppel can arise regardless of the *Warner-Jenkinson* presumptions.

This *Litton* holding also precludes any finding of infringement here.

To specifically answer the question posed by the Court, where the presumption is applicable, or where there has been an unmistakable surrender by an assertion of non-equivalence, no range of equivalents is available.

Where the amendment was made for reasons relating to patentability, applicable Supreme Court precedent bars resort to the doctrine of equivalents and dictates that no range of equivalents is available.

*The Limited Range of Equivalents Allowed in Litton,
Even If Applicable, Precludes Infringement Here*

As noted above, *Litton* barred a patentee from resorting to the doctrine of equivalents to expand the scope of an amended element to encompass a corresponding element that was the same, or only trivially different from, the prior art element before the PTO.

As to the magnetizable material for the sleeve, the prior art element cited to the PTO by Festo was the non-magnetizable material for the sleeve and it is this same non-magnetizable material that is in the SMC sleeve.

As to the soft/hard *combination* of a sealing ring and a guide ring (at each end of the piston), the prior art element cited to the PTO by Festo was the single ring and it is this same single ring (the too hard guide ring) that is at one end of the SMC piston.

Similarly, as to the Carroll patent, SMC has at one end of its piston the too hard guide ring of the prior art.

*Festo's Assertion of Non-Equivalence
Precludes Infringement Here*

As noted above, there can be no range of equivalence where there is an unmistakable surrender of subject matter by an assertion of non-

equivalence. As to the added-by-amendment magnetizable material for the sleeve, SMC uses only the non-magnetizable material which the Stoll specification asserts to be *deficient* and *non-equivalent*. Similarly, as to the added-by-amendment soft/hard *combination* of a sealing ring and a guide ring at each end of the piston, SMC uses at one end of the piston only the too hard guide ring which the Stoll specification asserts to be *deficient* and *non-equivalent*. Likewise, as to the added-by-amendment sealing ring at each end of the piston (Carroll patent), SMC uses at one end of the piston only the too hard guide ring which Festo asserts was both *deficient* and *non-equivalent*.

*Where the Amendment Was Made for Reasons Relating
to Patentability, Applicable Supreme Court Precedent
Dictates That No Range of Equivalence Is Available*

The controlling law with respect to any possible range of equivalence for prosecution history estoppel is *Exhibit Supply, supra*. *Exhibit Supply* held in no uncertain terms that, where prosecution history estoppel is applicable, there is no range of equivalence. In *Exhibit Supply*, the patent was directed to a resilient switch or circuit closure disposed on the board of a game table as to serve as a target which, when struck by a freely rolling

ball, would momentarily close an electrical circuit. Originally, the claim referred to the conductor as being "carried by the table." After rejection, the applicant amended the claim to refer to the conductor as being "embedded in the table." The Supreme Court specifically held that it was "immaterial whether the examiner was right or wrong in rejecting the claim as filed." Thus, the patentee was precluded from arguing that his amendment was unduly restrictive and was not required by the prior art. The Court then held that the applicant abandoned "*all* that is embraced in [the] difference" between "carried by the table" and "embedded in the table" - i.e., no possible range of equivalence (emphasis added). As specifically held by the Court (at 518; 279),

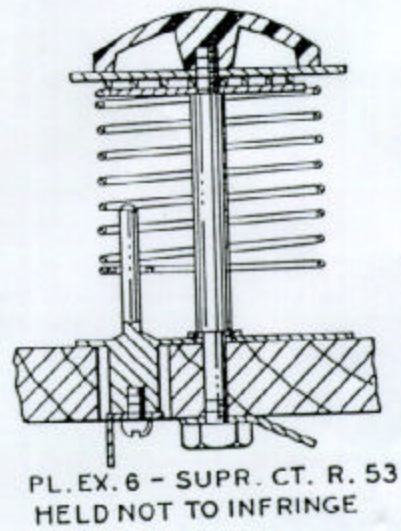
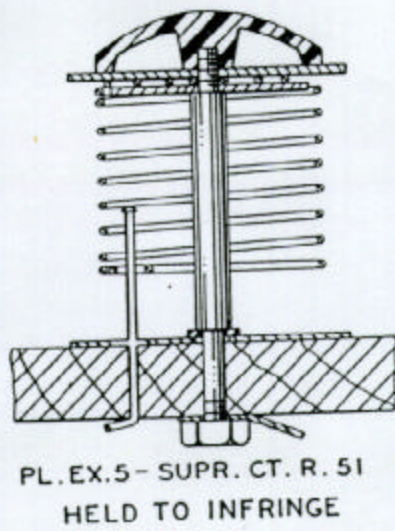
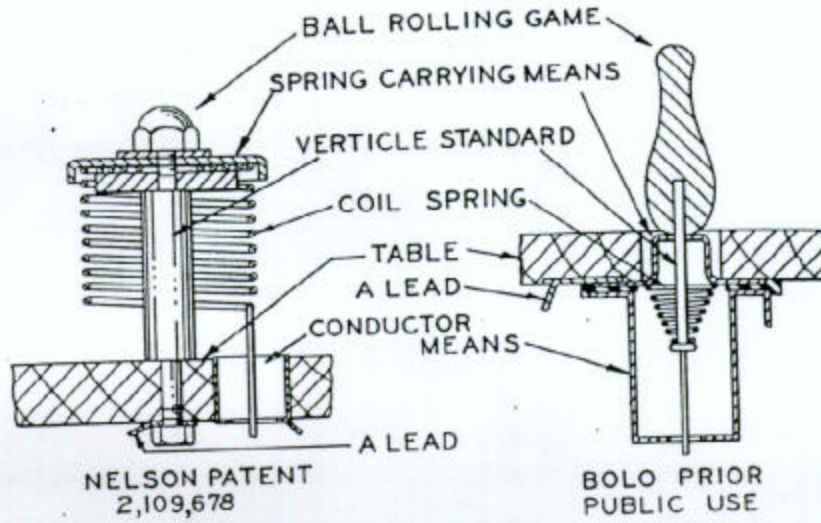
By striking that phrase ["carried by the table"] from the claim and substituting for it "embedded in the table" the applicant restricted his claim to those combinations in which the conductor means, though carried on the table, is also embedded in it. By the amendment he recognized and emphasized the difference between the two phrases *and proclaimed his abandonment of all that is embraced in that difference*. [citations omitted] The difference which he thus proclaimed must be regarded as material, and *since the amendment operates as a disclaimer of that difference* it must be strictly construed against him. [citations omitted] As the question is one of construction of

the claim *it is immaterial whether the examiner was right or wrong in rejecting the claim as filed.* [citations omitted] It follows that what the patentee, by a strict construction of the claim, has *disclaimed -- conductors which are carried by the table but not embedded in it --* cannot now be regained by recourse to the doctrine of equivalents, which at most operates, by liberal construction, to secure to the inventor the full benefits, *not disclaimed*, of the claims allowed. (emphasis added)

To better illustrate this point, the following is page 658 from the treatise *PATENT LAW* (2d ed. 1981) by R. A. Choate and W. H. Francis (West Publishing Co.).

EXHIBIT SUPPLY CO. V. ACE PATENTS CORP.

315 U.S. 126 (1942)



(164487)

As is apparent, there is no practical difference between the "carried by the table" non-infringing device and the "embedded in the table" device that was held to infringe. However, because the patentee was barred from resorting to the doctrine of equivalents, that small difference was the *critical* difference between non-infringement and infringement.⁴⁷

⁴⁷ To the same effect are *Smith v. Magic City Kennel Club, Inc.*, 51 S.Ct. 291, 294 (1931) ("The petitioner resorts to the doctrine of equivalents What has already been said disposes of this contention, for where a patentee has narrowed his claim, in order to escape rejection, he may not 'by resort to the doctrine of equivalents, give to the claim the larger scope which it might have had without the amendments, which amount to disclaimer.'") and *Keystone Driller Co. v. Northwest Engineering Corp.*, 55 S.Ct. 262, 264 (1935) ("a reading of the terms employed as petitioner's position requires ... would be contrary to the limitation which the Patent Office file wrapper shows the applicant placed upon his asserted invention."), both cited in *Warner-Jenkinson*, and the Court's earlier decisions in, e.g., *I.T.S. Rubber Co. v. Essex Rubber Co.*, 47 S.Ct. 136, 141 (1926) ("By the limitation of the claims in the Patent Office proceeding to the three-point contact lift the patentee made this precise form a material element, and having thus narrowed the claims, cannot, as was said in the *Weber Electric Co.* case, now enlarge their scope by a resort to the doctrine of equivalents. This would render nugatory the specific limitation."); *Hubbell v. United States*, 21 S.Ct. 24, 28 (1900) ("Nor can we accept the contention that these two combinations are identical because they are intended to obtain the same result. What we have to consider is not whether the end sought to be effected is the same, but whether the devices or mechanical means by which the desired result is secured is the same."); and *Weber Electric Co. v. E.H. Freeman Electric Co.*, 41 S.Ct. 600, 603 (1921) ("Having thus narrowed his claim against rotary movement in order to obtain a patent the patentee may not by construction, or by resort to the doctrine of equivalents, give to the claim the larger scope which it might have had without the amendments, which amount to a disclaimer of rotation as an operative feature of his devise.").

The Supreme Court in *Warner-Jenkinson* had no reason to consider any possible range of equivalence where prosecution history estoppel was applicable since *Exhibit Supply* (cited in *Warner-Jenkinson*) held that there was no possible range of equivalence ("all that is embraced in [the] difference" is *disclaimed*, emphasis added). Further, note 8 of *Warner-Jenkinson* demonstrates the Court's understanding that, where prosecution history estoppel is applicable, there can be no range of equivalence. There, the Court stated - "if prosecution history estoppel would apply, partial or complete judgment should be rendered by the court, as there would be no further *material* issue for the jury to resolve." Emphasis by Court. *If* a range of equivalence were available, the court could not enter judgment since the range of equivalence could preclude any such judgment.

Further, the Supreme Court in *Warner-Jenkinson* specifically articulated that there was a complete bar (no range of equivalence) where the presumption (that the amendment related to patentability) was

applicable. Also, *see Sextant, supra*. It defies logic to conclude that the Court thought there should be a complete bar where the presumption is applicable, but that there should be a less than complete bar or no bar at all (a 100% range of equivalents) where the presumption was unnecessary since it was clear that the amendment related to patentability. Further, since the Court's purpose in redefining prosecution history estoppel was to impart certainty in order to provide notice to the public as to the scope of the claims, it makes little sense to make estoppel a greater certainty only to have the effect of the estoppel rendered uncertain by the uncertain range of equivalents to be accorded the estoppel.

Some members of this Court have questioned the correctness of the holding in *Litton* that, in some circumstances, even where prosecution history estoppel is applicable, there is a possible range of equivalence. See the dissents by Judges Plager, Clevenger and Gajarsa from the declining of the suggestion for rehearing *en banc* in *Litton Systems, Inc. v. Honeywell, Inc.*, 145 F.3d 1472, 47 USPQ2d 1106 (Fed. Cir. 1998) and the dissent by Judges Clevenger and Gajarsa from the declining of the suggestion for

rehearing *en banc* in *Hughes Aircraft Co. v. United States*, 148 F.3d 1384, 47 USPQ2d 1542 (Fed. Cir. 1998), *cert. denied*, 119 S.Ct. 1112 (1999).

Question 4

When "no explanation [for a claim amendment] is established," *Warner-Jenkinson*, 520 U.S. at 33, thus invoking the presumption of prosecution history estoppel under *Warner-Jenkinson*, what range of equivalents, if any, is available under the doctrine of equivalents for the claim element so amended?

The answer to this question is the same as the answer to question 3, only stronger. As noted in response to question 3, the Supreme Court clearly articulated in *Warner-Jenkinson* that, where the presumption is applicable, prosecution history estoppel acts as a complete bar to the doctrine of equivalents. Also, *see Sextant, supra*.

Question 5

Would a judgment of infringement in this case violate *Warner-Jenkinson's* requirement that the application of the doctrine of equivalents "is not allowed such broad play as to eliminate [an] element in its entirety," 520 U.S. at 29. In other words, would such a judgment of infringement, post *Warner-Jenkinson*, violate the "all elements" rule?

A judgment of infringement in this case would most definitely violate the requirement of *Warner-Jenkinson* that the application of the doctrine of equivalents "is not allowed such broad play as to eliminate [an] element in its entirety."

Claim 1 of the Stoll patent requires that the sleeve be "of magnetizable material." Festo's infringement theories (in which non-magnetizable material is supposedly the equivalent of magnetizable material) eliminate this claim element in its entirety.

Claim 1 of the Stoll patent also requires a sealing ring/guide ring *combination* at each end of the piston and Festo's infringement theory (in which at one end there is no sealing ring/guide ring *combination* but only a too hard guide ring) eliminates this *combination* claim element in its entirety.

Claim 9 of the Carroll patent requires a sealing ring at each end of the piston. Festo's infringement theory (which seeks to cover a cylinder in which at one end there is no sealing ring, but only a too hard guide ring) eliminates this claim element in its entirety.

V. Conclusion

For the foregoing reasons, both the all-elements rule and prosecution history estoppel preclude as a matter of law any finding of infringement of either the Stoll or the Carroll patent by the SMC rodless cylinder.

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Certificate of Compliance

Pursuant to rule 32(a)(7)(C), Fed. R. App. P., I hereby certify that the word count of the word-processing system used to prepare this brief is 11, 892 words.

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Proof of Service

I hereby certify that the foregoing *IN BANC* OPENING BRIEF OF DEFENDANTS-APPELLANTS SMC CORP. ET AL. was served upon counsel for plaintiff-appellee Festo Corp., Charles R. Hoffmann, Esq., Hoffmann & Baron, 6900 Jericho Turnpike, Syosset, New York 11791 by Federal Express (next day delivery) this 19th day of October, 1999.
