In The
United States Court of Appeals
For The Federal Circuit

NORGREN INC.,

Appellant,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee.

and

SMC CORPORATION and SMC CORPORATION OF AMERICA,

Intervenors.

ON APPEAL FROM THE UNITED STATES INTERNATIONAL TRADE COMMISSION IN INVESTIGATION No. 337-TA-587.

BRIEF OF APPELLANT

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Dated: September 22, 2008

CERTIFICATE OF INTEREST

Counsel for the Appellant, Norgren, Inc., certifies the following:

1. The full name of every party or amicus represented by me is:

Norgren, Inc.

2. The name of the real party in interest represented by me is:

Norgren, Inc.

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:

IMI Americas, Inc.

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STATEMENT OF RELATED CASE

The United States District Court For The District Of Colorado, Case Number: 06-cv-533-EWN-PAC, Judge Edward W. Nottingham. This case has been stayed.

APPELLATE JURISDICTIONAL STATEMENT

By publication of a notice in the Federal Register on November 13, 2006, pursuant to subsection (b) of the Tariff Act of 1930, as amended, the International Trade Commission ("ITC") instituted an investigation to determine:

> [W]hether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain devices for modular compressed air conditioning units and the FRL units they connect by reason of infringement of one or more of claims 1–9, and whether an industry in the United States exists as required by subsection (a)(2) of section 337.

71 Fed. Reg. 66193-194 (2006).

On April 14, 2008 the ITC rendered a final decision in its Notice of Commission Decision Not to Review an Initial Determination of the Administrative Law Judge Finding No Violation of Section 337; Termination of the Investigation; Investigation No. 337-TA-587. A Petition For Review was timely filed on June 12, 2008; within the 60 days called for under 19 U.S.C. § 1337(c). This Court has jurisdiction to hear this appeal under 28 U.S.C. § 1295(a)(6).

STATEMENT OF THE ISSUES

1. Did the Administrative Law Judge ("ALJ") improperly construe the phrase "generally rectangular ported flange" found in claim 1(and implied in asserted claims 2-5, 7 and 9) of U.S. Patent No. 5,372,392 ("the '392 patent") by imposing the limitation that the flange must have four projecting rims?
2. Did the ALJ improperly limit the scope of claim 9 by excluding the FRL's to which the clamp is connected?
3. Did the ALJ err in its finding of no literal infringement?
4. Did the ALJ err in its finding of non-infringement under the Doctrine of Equivalents?

STATEMENT OF THE CASE

On October 06, 1996, Norgren filed a complaint with the International Trade Commission ("the Commission" or the "ITC") pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C § 1337. The complaint alleged unfair methods of competition and unfair acts in violation of Section 337 by the importation and sale of certain connecting devices and the devices they connect (FRL's) that infringe claims 1-5, 7 and 9 of the '392 patent.

The complaint named as respondents, SMC of America, SMC of Japan, Airtac, and MFD. On November 06, 2006, the Commission ordered this

investigation be instituted. See 71 Fed. Reg. 12345 (November 5, 2006). The investigation was initially assigned to Administrative Law Judge Sidney Harris.

Norgren entered into a consent order with Airtac and MFD on January 4, 2007. On April 04, 2007, the Commission reassigned this investigation from Judge Harris to Administrative Law Judge Carl Charneski. The evidentiary hearing was held November 27, 2007 through November 29, 2007.

On February 13, 2008 the Initial Determination ("ID") was mailed to the parties. The ID found no violation of section 337 due to non-infringement. Norgren petitioned to have the ALJ's ID reviewed on February 25, 2008.

On April 14, 2008 the ITC rendered a final decision in its Notice of Commission Decision Not to Review an Initial Determination of the Administrative Law Judge Finding No Violation of Section 337; Termination of the Investigation; Investigation No. 337-TA-587.

Norgren appeals the finding of no violation of section 337 due to non-infringement.

STATEMENT OF THE FACTS

I. The Technology at Issue

The technology at issue is a connector with a pivotal clamp that connects fluid-flow units such as regulators, filters and the like, used in compressed air

conditioning systems (pneumatic systems); along with the fluid-flow units ("FRL's") that are connected by the pivotal clamp connector.

The connecting device ("Quikclamp") described in Norgren's '392 patent is an innovative way to provide a leakless sealing connector between FRL's that can be easily unclamped to allow the removal or replacement of the units without disassembling the entire system.

II. The Patent at Issue

United States Letters Patent No. 5,372,392, entitled "Connecting Devices," issued on December 13, 1994, to inventors Myron Dunn, Kevin T. Dickson, and Urs Moeker. The '392 patent expires on June 24, 2013, and is based on Patent Application Serial No. 08/080,723 filed on June 24, 1993. The '392 patent has one independent claim and eight dependent claims. Norgren owns by assignment the entire right, title, and interest in and to the '392 patent.

III. The Products at Issue

SMC imports into the United States a series of connecting devices used in compressed air conditioning systems that employ the "Quikclamp" technology that infringes claims 1-5, 7 and 9 of the '392 patent. These items are distributed throughout the United States after importation by SMC Corporation of America, a wholly owned subsidiary of SMC Corporation.

The connecting devices made and imported into the United States by SMC employ a uniquely formed receptor so that only SMC fluid-flow air compression units (modular FRL units) will fit the connectors. This requires that the purchaser must also purchase SMC FRL's for everything to properly fit together for use. The FRL units are themselves accused devices as they are described in claim 9 of the '392 patent.

IV. ID Findings

While Norgren is appealing the claim construction of the ID in regards to the phrase "generally rectangular ported flange" and the related claim term of "adapted . . . to engage . . .the pair of generally rectangular ported flanges . . .," Norgren does not appeal or challenge other claim constructions and findings in the ID on disputed claim terms. Specifically, Norgren agrees with the ID's construction of the terms "four-sided generally rectangular clamp" and "pivotally mounted side." Norgren also agrees with the ID that the SMC connector or clamp is both a four-sided generally rectangular clamp and has a pivotally mounted side.

The ID designated, and Norgren agrees, that there were three disputed claim terms or limitations at trial:

1. Generally rectangular ported flange;
2. Four-sided generally rectangular clamp adapted to engage in parallel relationship with one another, the pair of ported flanges; and

3. Pivotally mounted.

(A19-A20).

The ID determined that number two of the disputed terms or limitations (above) should be construed as follows:

> This Tribunal concurs that a "four-sided generally rectangular clamp" is rectangular or close to rectangular in its shape, and thus has four sides. It is further determined that the clamp must be adapted to engage the generally rectangular ported flanges of the "fluid-flow elements" described in the claim preamble. Thus, the dimensions of the sides of the clamp must accommodate the sides of the flanges. (A37)

Norgren has no quarrel with this construction and how the ID related the first part of the construction to the SMC clamp. Norgren does quarrel with the ID reading in the limitation of four projecting sides to the flanges, as will be discussed later.

The ID correctly made the following finding in regards to the SMC clamp:

> Nevertheless, it is found that the accused SMC connectors do provide a "four-sided generally rectangular clamp," . . . SMC and its expert contends that the accused connectors are two-sided, not four-sided. *See, e.g.* Trumper Tr. 609. The record evidence shows otherwise. (A48)

In addition to this finding with which Norgren concurs, the ID also correctly construed and applied the term "pivotally mounted side." This can be seen in the depiction of the SMC clamp and FRL below.

On page 37 of the ID (A42) it was found that: "'pivotally mounted' is construed to mean 'placed or fastened in way (sic) that allows an object to move about a point.'" The ID further found that the SMC clamps had a pivotally mounted side, as that term was construed:

> SMC's accused connectors contain at least one side that is placed or fastened in such a way that it can move about a point. While it is not hingedly-mounted, which SMC would require, there is no genuine dispute that the accused connectors contain such a feature. (A44)

Based on the constructions and findings cited in this section with which Norgren agrees, and excluding Claim 9 that will be discussed *infra*, the only claim construction/infringement issue to be decided by this Court in this appeal is whether the *generally rectangular ported flange* must have four projecting rims.

SUMMARY OF THE ARGUMENT

The ID correctly construed the terms "four-sided generally rectangular clamp" and "pivotally mounted side" and properly found the SMC connector

(clamp) to read on these terms. The ID incorrectly construed: "generally rectangular ported flange" and its companion phrase "adapted . . .to engage . . .the pair of ported flanges" to require the flanges to have four projecting rims.

By requiring that a *flange* have four projecting rims the ID violated the following well-established claim construction principles:

1. It read in a limitation not found in any claim language or required in the balance of the specification.
2. It read in a limitation found only in the patent's preferred embodiments.
3. It adopted a definition for *flange* that included four projecting rims that was not supported by either intrinsic or extrinsic evidence.
4. It ignored the doctrine of claim differentiation.
5. It found a limitation on the scope of *flange* in the prosecution history that was not present there.

In addition, the specification of the '392 patent shows by drawings and by text that a *flange* is the entire feature formed on the bodies of the FRL units and not just the part enclosed in the patented clamp as the ID found. The specification also shows that the preferred embodiment of the patented clamp performs its claimed function with a *flange* possessing only two projecting rims. Functionally, four projecting rims are, therefore, unnecessary for the proper function of the clamp.

Flange is not specially defined in the patent and persons of ordinary skill in the art accord the term a wide range of meanings that includes a simple connecting device that projects out from that which is to be connected and may or may not include any number of projecting rims.

Since Claim 4 adds only the limitation that the pivoting side and its opposite have tapered walls to mesh with projections on the *flange*, that independent claim 1 does not require any projections on the *flange* at all, much less four of them.

Not only is the SMC clamp adapted to engage a *flange* as that word is understood by persons of ordinary skill in the art, i.e. one with or without projecting rims, but it is adapted to engage one with four projecting rims.

If the SMC clamp does not literally infringe the '392 patent, it does so under the doctrine of equivalents.

Claim 9 contains the limitation that the patented clamp connects two compressed air conditioning units. Thus, any combination of the SMC clamp and FRLs infringes Claim 9.

ARGUMENT

I. Standard of Review

This appeal is entirely concerned with claim construction. Claim construction is a question of law that the Federal Circuit reviews *de novo*. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) *en banc*.

II. Background

The device patented in the '392 patent is a relatively simple and inexpensive connector or clamp used to join together fluid flow units (usually filters, regulators and lubricators—"FRLs") that are used throughout virtually every manufacturing facility in the world in pneumatic systems. FRLs do what the component names suggest: they filter, regulate and lubricate compressed air that provides the power to activate pneumatic systems. A typical assembly line with robotic machines usually incorporates many of these. Most often, they come in regimented series as the abbreviation "FRL" suggests: a filter is connected to a regulator that is, in turn, connected to a lubricator.

Since FRLs are connected serially and because the units don't last forever in constant use, repairs or replacements are inevitable. Before the introduction of the '392 clamp, also known as the "Quikclamp," assembly lines had to be shut down for considerable lengths of time to allow for a worker to unbolt the non-functioning units or take apart a connecting device in order to remove a unit. Through its innovative pivotally mounted side, a Quikclamp solved this problem by permitting a unit to be removed much more quickly, while its rectangular shape kept the remaining units in the proper position until a repaired unit or replacement was put in place, then the pivotally mounted side would be swung back into a locking or operative position. In operative position the Quikclamp kept the FRL combination

in fluid-tight operation, essential for an efficient compressed air system. (A8-A14).

There is no real dispute in this case about the composition of the '392 clamp itself. It is generally rectangular, has one pivotally mounted side that may be pivoted out of position to receive one flange apiece from adjoining FRL units, then pivoted back into operative position in which it urges the two flanges together to form a fluid-tight seal. There is also no dispute that the accused SMC clamp does all of these things. The only dispute is that the attachment features on the SMC FRLs that they call "mounting ears" are not *flanges* per the '392 patent.

Other issues decided by the ALJ in his ID; importation of the devices by SMC, the existence of a domestic industry, and the validity of the '392 patent; are not being appealed.

III. Generally Rectangular Ported Flange

The '392 patent is **not** about a novel or innovative ***flange***. Instead, the patent defines a new **clamp** that *connects* flanges formed on the flanks of FRL units. As discussed previously, the innovative feature of the clamp is its pivotally mounted side that allows for the fast and efficient removal or replacement of FRL units. The '392 patent is entitled "Connecting Devices" and that is its subject. The ID determined, and Norgren certainly agrees, that the *generally rectangular ported flange* is not even a claim element of any of the asserted claims. (A28).

Nonetheless, this case now turns on the construction of *flange*. Norgren does not argue here that the proper construction of *flange* is not necessary to determine infringement. It is. Claim 1 requires that the connecting device, or clamp, *engage . . .the pair of generally rectangular ported flanges*. Col. 4, ll 50-52. The flanges must, therefore, be configured to allow a generally rectangular clamp with a pivotally mounted side to engage them in a way that also allows the clamp to draw the flanges together to form a fluid-tight seal.

Norgren simply posits that the flange is merely something attached directly to the bodies of the FRLs that allows the clamp to secure two FRLs, or other fluid-flow elements, in a fluid-tight connection, and that flanges of the type described were well-known in the art. In short, the patent is all about the connector, not the flange, and non-infringement should not be based on a construction of flange that is unsupported by the principles of claim construction most recently set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313-1323 (Fed. Cir. 2005) *en banc*.

The ID's construction of *flange* requiring four projecting rims violates the principles of *Phillips* in several important ways:

1. It adds ("reads in") a limitation (four projecting rims) not found or required in the language of either claim 1 or any other claim, but found only in the patent's preferred embodiments. *Phillips* at 1323.

2. It adopts a meaning accorded to persons of skill in the art that is unsupported by either intrinsic or extrinsic evidence. *Phillips* at 1313.

3. It ignores the doctrine of claim differentiation. *Phillips* at 1314-1315.

4. It finds support for adding the limitation of four projecting rims by a misreading of the prosecution history. *Phillips* at 1316-1317.

This Court's majority *en banc* opinion in *Phillips* allowed that there was no *magic formula or catechism for conducting claim construction.* *Phillips* at 1324. Further, there was no particular sequence that a trial court should follow to determine what a person of ordinary skill in the art would understand disputed claim terms to mean. What is clear from *Phillips* is: that intrinsic evidence trumps extrinsic evidence; that any construction considered must conform to the logical interpretation of the words of the claims (both asserted and non-asserted); that the construction must be not be inconsistent with the inclusion of the preferred embodiments in the independent claims; and the intrinsic evidence must be read carefully to determine if there has been any clear disavowal of scope. The *Phillips* court also reiterated the claim construction canon against reading in limitations from the specification (*Phillips* at 1323) and reaffirmed the doctrine of claim differentiation. *Phillips* at 1314-1315.

By application of the *Phillips* principles, the ID cannot be affirmed because:

- The only place in the '392 patent that a flange with four projecting rims appears is in the descriptions of the preferred embodiments.
- Nothing in the language of the only independent claim (claim 1) compels a construction of a flange with projecting rims.
- Nothing in either the claims or the rest of the specification, even in the description of the preferred embodiments, describes a function for projections on two of the flange's four sides.
- Application of the doctrine of claim differentiation raises a presumption that claim 1 does **not** require that the flange have four projecting rims.
- Nowhere in the '392 patent or its prosecution history is there a clear disavowal of scope on the configuration or number of projections on the flanges, except that they must be *generally rectangular* and contain a *port*.
- Finally, the extrinsic evidence admitted at the trial was entirely consistent with a broad reading of the term *flange* that included, but was not limited to, a flange with either two **or** four projecting rims.

Both the intrinsic and extrinsic evidence support a construction of *flange* that includes one like that in figures 1, 2 & 5 of the '392 patent, as well as, one with two projecting rims as seen on the SMC FRLs.

A. Intrinsic Evidence

1. The Claim Language.

A logical first step in claim construction is to look at the language of the claim in which the disputed term appears, in this case—claim 1.

> a four-sided, generally rectangular clamp adapted, in its operative clamping position, to engage, in parallel relationship with one another, the pair of generally rectangular ported flanges, one of said sides of the clamp being pivotally mounted so that said one side can be pivoted out of said operative clamping position in order to permit reception of said flanges into the clamp and then pivoted back into said operative clamping position... Claim 1 Column 4 lines 49-57.

Claim 1 contains only the descriptors *generally rectangular* and *ported* in reference to the flange. There is nothing in these adjectives that compels the addition of four projecting rims. Indeed, the ID correctly concludes that this language only compels the flange to be of a more or less rectangular shape and have a hole in it. (A29)[1]

2. Four Projecting Rims are *Not* Necessary for the Proper Function of the Flange.

Claim 1 requires that the clamp *engage* the flanges located on the sides of adjoining *fluid-flow elements* (for discussion purposes these will be denominated "FRLs"). The pivoting side of the clamp is pivoted out of position to *permit*

[1] The ID found that the hole or port must be in the *middle* of the flange. (A27). Although this is a common and logical location for the port, there is no reason given in the ID or the patent to limit where it must be.

reception of said flanges into the clamp. The term *flanges* in this reference is plural because the clamp engages one flange attached to the side of *each* FRL that are to be connected. Once the flanges are so received, the pivoting side is pivoted into a locking or *operative* position *in which position the clamp urges the flanges towards one another* to establish *fluid-tight communication between said ports.* Claim 1, col. 4, ll 62-66.

Neither the term "projecting rims" nor anything suggesting such a feature appears anywhere in the language of claim 1. However, the ID reads the passage *reception of the flanges* ***into the clamp*** as requiring that the **entire** flange feature be encompassed by the parameters of the clamp.[2] From this conclusion, the ID extrapolates that the only configuration that could possibly fit entirely within the clamp was one with four projecting rims. Nothing in the claim language itself or in the specification's discussion of how the clamp accomplishes its *urging together* function compels such a reading. In fact, a close look at the preferred embodiments demonstrates that even they do not have flanges that are **entirely** absorbed into the clamp.

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[2] There appears to be an inherent contradiction in the ID about exactly what constitutes a *flange.* On one hand the ID found that the entire flange must fit inside the clamp, while on the other hand, it found that the flange is the whole structure located on two opposite sides of an FRL that allows for connection by the invented clamp.

3. The *Flanges* in the Preferred Embodiments are Not Entirely Enclosed Within the Clamp.

Only figures 3 & 4 of the '392 patent depict the flanges. They are identified as items **26** and **30**. Whereas the extent of the flanges is not clear in figure 3, it is in figure 4. Items **26** and **30** are the "L" shaped segments of the diagram that appear on either side of the ports **27** and **31**, projecting out from the bodies of the FRLs to be connected by the clamp. The wavy lines on the right and left of figure 4 show that the flanges continue on in those directions all the way to the bodies of the FRLs. (figure 4 is reproduced below with items **26** and **30** shaded red). Thus, the flanges, even in this preferred embodiment, include not only that part enclosed by the clamp, but the whole feature extending out from the body of the FRL.

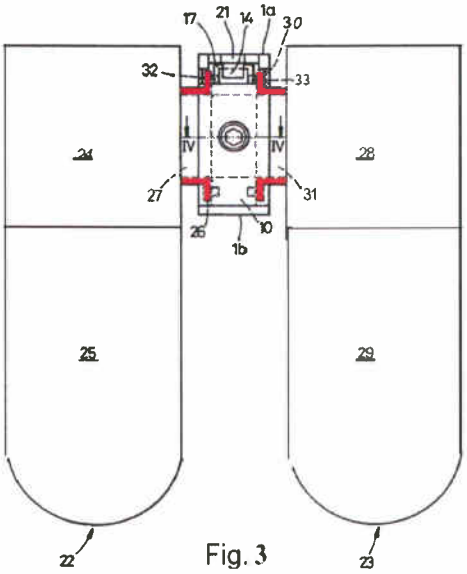


Fig. 3

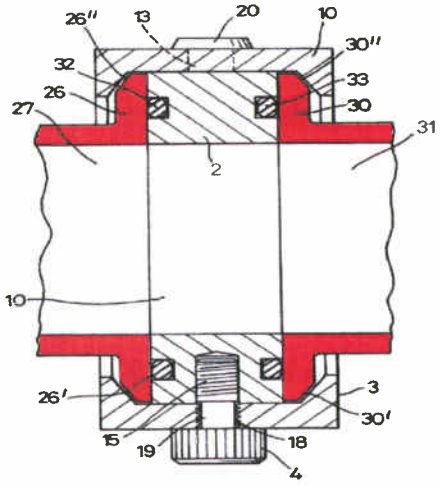


Fig. 4

If figure 4 fails to make this evident, the description of the figure in column 3 of the specification makes this conclusion certain.

> The body **24** is provided with a rectangular connecting flange **26 having an outlet port 27 that communicates with internals of the filter unit 22.** Col. 3, ll 26-29 (emphasis added)

It is the **body** of the FRL that is *provided* with the *flange* (i.e. the flange is attached directly to the body of the FRL). The flange includes within it a port the goes all the way from its junction with the corresponding port to the ***internals*** (i.e. the insides of) of the FRL. In other words, in this preferred embodiment, the flange is the entire feature attached directly to the body of the FRL and has a port, or hole in it, that extends all of the way to the interior of the FRL. The flange is **not** just the part enclosed by the clamp.

This interpretation, that the flange is the whole feature extending out from the FRLs, only the very end of which is encompassed by the clamp, is corroborated in column 2 of the specification describing figures 1 & 2. Here the specification is discussing the **periphery**[3] of the flange being received by the wall of channels present in the preferred embodiment shown in figures 1 & 2. Col. 2, ll 42-43. Websters defines *periphery* as a *1. A boundary line, esp. that of a rounded figure; perimeter 2. An outside surface, esp. that of a rounded object or body 3. Surrounding space or area; outer parts; environs or outskirts.* Webster's New World Dictionary (1978) p. 1059. Therefore, only the very edge of the flange is

[3] "the walls . . .receive between them and the spacer 2 the periphery of a ported, rectangular flange formed on each of the conditioning units to be joined together." (emphasis added).

received into the clamp; denoting that a larger part of the flange is not so received. The flanges, themselves, are described in this passage as being ***formed on each of the conditioning units*** *to be joined together.* (emphasis added) Col. 2, ll 44-45. The flanges extend out from the bodies of the FRLs.

If the parts of the flanges not enclosed within the clamp in its operative position were to be called by some other term, for the sake of argument – "stems," there would have been a separate item number given to them. However, no item number was given to the stems. There is no such separate number. The flanges are the <u>whole</u> feature extending out from the sides of the FRLs and are not *only* the periphery within the clamp.[4] Rarely, if ever, does a proper construction of the only independent claim exclude the preferred embodiments. *PSN Illinois, LLC v. Ivoclar Vivadent, Inc.*, 525 F.3d 1159, 1166 (Fed. Cir. 2008). To include the embodiment shown in figure 4, a *flange* must include both the parts encased by the closed clamp and the stems. The phrase *reception . . . into the clamp*, clearly does not mandate the **total absorption** of the flange within the clamp.

[4] Paradoxically, the ID found that the *flange* was the whole structure that is connected by the clamp (A29) yet also found that the *flange* must be entirely enclosed by the clamp. (A37).

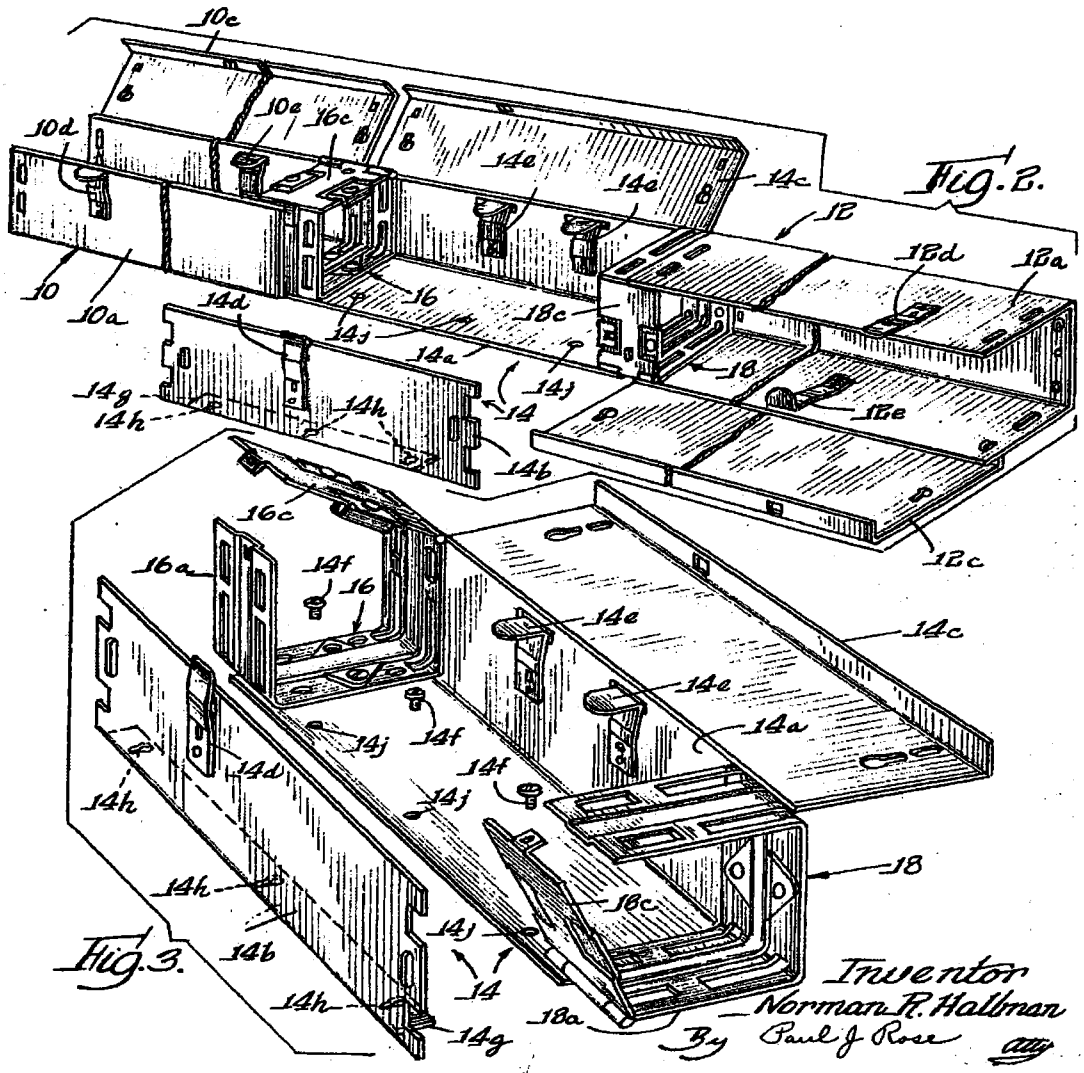
4. The ID also Misreads the Prosecution History as Requiring that the Whole *Flange* be Taken into the Clamp.

The ID attempts to further justify its reading that the *flange* is only that part fitting inside the closed clamp by a misinterpretation of the '392 patent's prosecution history. More specifically, the ID focuses on statements made by the patent's prosecutor on (A291-A293) where he distinguished the invention from the prior art *Edmaier* and *Abbes* patents read in view of the *Hallman* or *Rodengren* (sic—actually Rosengren) patents. The prosecutor said that neither *Edmaier* nor *Abbes* disclosed a clamp that pivoted out of position in order to *fit over* flanges of FRLs[5]. The Examiner countered that a pivoting side could be found in *Hallman* or *Rosengren*. After stating that the *Edmaier* and *Abbes* patents were in a different field of art than those of *Hallman* and *Rosengren*; the prosecutor explains the *fit over* reference when he distinguished the *Hallman* patent from the '392 invention. The prosecutor said:

> More particularly, with regard to the combination of Abbes and Hallman, Applicants accept that each of the rectangular connectors 16, etc. of Hallman has a pivotal side 16c, etc., but that connector does not receive within it the ducts 14, etc. being coupled together. Rather, the ducts 14 surround the connector. (Bates 0049) (emphasis in original)

[5] Indeed, these patents have no feature resembling the '392 patent's pivotally mounted side.

One look at figures 2 & 3 from *Hallman* shows exactly what the prosecutor meant. (see below) The connector in *Hallman* is **inside** that which is being connected, as opposed to being on its outside as the '392 clamp is. Nothing in the prosecution history even hints that the '392 clamp must totally enclose the flange formed on the outside of the FRLs.

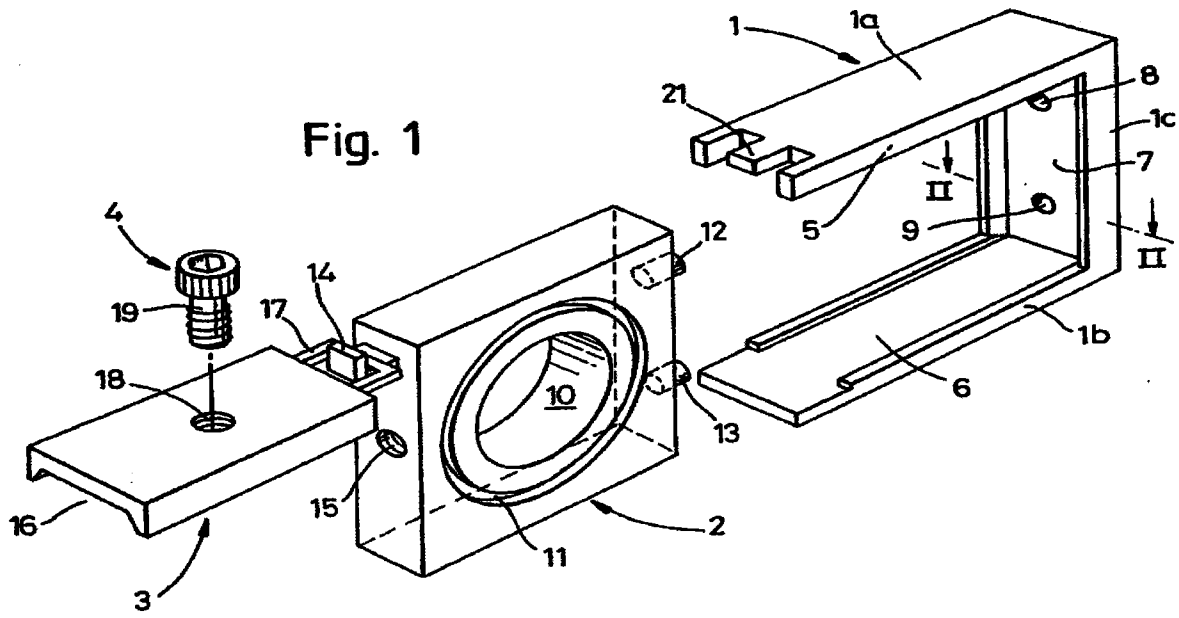


5. The Function of the *Flanges* in the Preferred Embodiment Only Requires Two of the Four Projecting Rims.

As previously noted, figure 3 of the '392 patent illustrates two FRL units being joined by means of the flanges formed on their respective sides. The flanges are items **26** and **30**. The pivotally mounted side of the clamp is item **3**, while 3's opposite side is item **1c**. The non-functional sides of the clamp are designated as **1a** and **1b**. The function of the clamp in joining the two FRL units is described as follows:

> The filter unit **22** and lubricator unit **23** are connected together by locating the flanges **26** and **30** into the connecting means with the member **3** in its raised position (the position shown in FIG. **1**). The member **3** is then lowered and the bolt **4** engaged with the tapped bore **15**. The bolt **4** is then tightened whereupon the ***tapered walls of the sections 1c and 3 co-operate with bevelled (sic) portions 26', 26" and 30', 30" of the flanges 26 and 30 thereby urging the latter into sealing engagement with the spacer 2 and bringing the ports 27 and 31 into sealed communication with one another via the bore 10 formed in the spacer 2.*** Col. 3, ll 42-53. (emphasis added)

Note that only sides **1c** and **3** have *tapered walls*, configured to receive the *beveled* tips of the flanges. When the beveled tips have meshed with the tapered walls, the pivoting side **3** is lowered into locking position that draws the two flanges together. The other two sides of the clamp, **1a** and **1b** in figure 1(below), are never mentioned in this passage because they have no function in the sealing operation of the clamp.



Nowhere in the claims or the balance of the specification is a function described for sides **1a** and **1b**, the "top" and "bottom" sections of the clamp. In the following section of this brief that discusses the extrinsic evidence, expert testimony fills in this deficit. That section will explain why the function of the top and bottom of the clamp can easily be accomplished without flanges having four projecting rims.

6. *Flange* is not Specially Defined in the Patent.

This Court has repeatedly held, that a patentee may be his own lexicographer, defining terms in an atypical fashion for the field of art in which the invented device belongs. The ID correctly found that *flange* has no special meaning in the '392 patent (A24). Since *flange* is not specially defined in the

patent, it should be accorded its ordinary and customary meaning to a person of ordinary skill in the art.

7. There is no Disavowal of Scope for the Term *Flange* in the '392 Patent.

Besides a generally rectangular shape and the requirement of a port, the only restrictions for the term *flange* in the '392 patent are based on what it must allow the clamp to do. As previously discussed, the flange must allow the clamp to connect to it in a way that permits it to be joined in a fluid-tight connection with the flange of an adjoining FRL unit. Also as discussed previously, neither the claim language nor the prosecution history limit the scope of the term.

8. The Language of Dependent Claim 4 Raises a Presumption that Independent Claim 1 does *not* Require *Flanges* to Have any Projecting Rims, Much Less Four of Them.

The majority opinion in *Phillips* reaffirmed this Court's presumption that *the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim. Phillips* at 1315. This is, of course, the doctrine of claim differentiation. This doctrine is particularly strong when the dependent claim adds only the single limitation in question. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004).

Claim 4 adds the single limitation that the pivoting side of the clamp (item **3** in the figures) and its opposite side (item **1c**) have the *tapered walls* discussed

previously in the reference to column 3 of the specification. In fact, this claim simply reiterates the cited part of column 3 concerning the function of the tapered walls as compliments to the projecting edges of the flanges to be connected. The presence of this limitation in claim 4 raises a strong presumption that tapered walls, and, hence, projecting edges that join with them, are **not** mandated in independent claim 1.

It goes without saying, that if two projecting rims to compliment the tapered walls of the pivoting side and its opposite are only required in claim 4, that four projecting rims are not required in *any* of the claims of the '392 patent, and particularly not in claim 1.

B. Extrinsic Evidence

Having established that:

- *flange* is not specially defined in the '392 patent;
- that no specific number of projecting edges, if any, are required by the claims (except claim 4);
- that the *flange* is the entire structure formed on the outsides of connecting FRL units;
- that only part of the *flange* need be enclosed in the clamp in its operative position; and

- that the *flange* must allow the clamp to receive it and draw it into fluid-tight communication with the adjoining flange;

a construction still must be determined for the term.

In a case such as this, *Phillips* allows consideration of extrinsic evidence such as dictionaries and expert testimony to establish a customary and ordinary meaning to a person of skill in the art. However, extrinsic evidence must be *considered in the context of the intrinsic evidence. Phillips* at 1319. Here, that means that any definition must be consistent with the function described for the flange. That definition must allow for the generally rectangular clamp to receive within it at least part of the flange, and in its locked or operative position, the clamp must be able to draw the connecting flanges together to form a fluid-tight seal.

Obvious places to look for a definition are dictionaries. The majority in *Phillips* warned against relying too heavily on dictionaries but did not prohibit their use. "The main problem . . . is that it focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent." *Phillips* at 1321. While a dictionary may be of some help to the court, the definition must be consistent with how the term is used in the patent. Therefore, any dictionary definition must provide for the function described above

and also must include the entire attachment shown on the sides of the FRLs in the '392 patent's preferred embodiments.

A dictionary definition may also be too simple or incomplete to convey a meaning consistent with the function described for the term in the patent documents. " . . .the authors of dictionaries or treatises may simplify ideas to communicate them most effectively to the public and may thus choose a meaning that is not pertinent to the understanding of particular claim language." *Phillips* at 1322.

A combination of dictionary definitions offered at trial comes the closest to describing both the function and the form of the *flanges* (as depicted in items 26 & 30 shown in figures 3 & 4) of the '392 patent.

At trial Norgren provided dictionary definitions from Webster's and the Oxford Dictionary. Webster's defines *flange* as *a projecting rim or collar on a wheel, pipe, rail, etc to hold it in place, give it strength, guide it, or attach it to something else.* (A333) The Oxford Dictionary defines it as *a projecting rim or piece.* (A338) Since items **26** and **30** of figure 4 in the patent show a configuration that doesn't equate to a either a rim or a collar; the second part of the Oxford definition, *a projecting piece*, meshes best with the intrinsic evidence: since even the preferred embodiment has both a rimmed part and a stem part (see previous section A(3)). The last section of the Webster's definition is also appropriate:

to . . .attach it to something else since that is the sole function of the flange as described in the specification. From dictionaries, the definition most consistent with the intrinsic evidence is a combination of the Oxford and Webster's definitions: *a projecting piece to attach the item to something else.*

The combined definition is consistent with the trial testimony of Norgren's expert, John Wiskamp: *any general connection feature used to join two faces together.* Transcript pp 260-261. Wiskamp's definition is consistent in that it is obvious that the flange must project out from the FRLs for the clamp to work and the flanges must have *faces* to allow for a sealing connection that aligns the two ports.

The ID incorrectly cites SMC's expert, David Trumper, as providing a competing field of art definition that included the four projecting rims. The ALJ cites page 601 of the trial transcript (A1601) to support a Trumper definition that includes the four projecting rims. On that page, Trumper specifically did **not** give a *flange* definition as that term would be understood by a person of ordinary skill in the art, rather he derived his definition solely from the patent itself:

> Q. Let's take each of those one-by-one if we could, we'll start with generally rectangular ported flange. Could you explain what this term means?
>
> A. Yes, the **patent** makes quite clear that the generally rectangular ported flange is a rectangular (sic) with projecting rims on all four side (sic) and a hole in

> the middle of the port (sic). Transcript p. 601, lines 11-18 (emphasis provided). (A1601)

Trumper said his "definition" came entirely from his interpretation of the patent, presumably from figures 3 & 4. Neither Trumper nor any other SMC witness *ever* gave a definition of *flange* as that term would have been understood by a person of ordinary skill in the art circa 1993, the time of filing of the '392 patent.

While Trumper never gave a field of art definition for *flange*, he revealed his true understanding of the term when he was describing the *Ribble*[6] patent in his testimony in support of SMC's defense of obviousness. Trumper was testifying about the figure from the *Ribble* patent found on page 33 of this brief. He unmistakably called the structure formed on the body of the FRL to which the connecting device attached, a *flange*. This is significant since the *Ribble flange* is virtually identical to the accused SMC flange ("mounting ears"). Both have projections on either side of the flange but the tops and bottoms are flat. Trumper's revealing testimony confirms what the dictionary and John Wiskamp present: a flange can take many forms as a connecting device formed on the body of an FRL.

> Q. And actually, could you go ahead and turn to figure 1, please? Can you describe what's depicted in Figure 1?

[6] US Patent No. 4,352,511

> A. Yes, this is from the 1982 timeframe, invention to Ribble, and it shows how to connect an FRL, in this case, to a pipe adapter, and there's a **flange with two mounting wedges on the sides**, you take this three-sided clamp and push it down over that **flange**, and it pulls these two faces together, sealing with an O-ring, and then you would insert, once this has gone down . . . (A1620) (Emphasis added).

Thus, the extrinsic evidence provides a consistent definition for *flange* as *a projecting piece to attach the item to something else.* From the Trumper testimony, it is clear that the definition includes attachments with either two or four projecting rims.

As for the function of the top and bottom projections shown in the '392 preferred embodiment, there was an unanimity of opinions expressed at the trial. Wiskamp, Trumper and SMC inventor Tomita agreed that they provided alignment and orientation. A1321-A1322; A1582-A1584; and A1694-A1696. SMC's flange ("mounting ears") with projecting rims on the sides but not the top and bottom was similarly capable of providing alignment and orientation. Trumper testimony, A1640-A1642.

Norgren's analysis to arrive at an accurate definition that fits both the function described in the patent documents and that would include the preferred embodiments mirrors that of Judge Young of the S.D. of Indiana in *Stant Manufacturing, Inc. v. Gerdes, GMBH*, 2004 WL 3315375 (S.D.Ind. 2004), attached in the addendum. In that case, the accused infringer wanted to limit the

definition of *flange* to only *disc-shaped structures*, the only shapes labeled *flanges* shown in the drawings. That, of course, is the precise approach of SMC, the Staff and the ID in this case. The court in *Stant* rejected this restrictive definition, pointing out that nothing in the claim language limited the meaning of *flange* to this shape and that the drawings merely reflected the preferred embodiments. Additionally, the court examined the specification to see if the patentee indicated an intent to limit the shape of the flanges. The court found that the patentee demonstrated no intent to limit the description of his flanges. Finally, the court invoked the doctrine of claim differentiation, finding a more specific shape in a non-asserted claim raising a presumption that the more general use of *flange* in the independent claims did not require that specific shape.

Like the patentee in the *Stant* case above, the '392 patentees made it clear that the *flange* shown in the drawings were just preferred embodiments and not the only way that flanges could be configured. In col. 2, ll 11-12 the patentees provide the caveat for the drawings: *Preferred embodiments of the invention will now be described in more detail.* Prior to the verbal description of the drawings, the patentees once again take pains to entitle the heading: *DESCRIPTION OF THE PREFERRED EMBODIMENTS.* At the end of the Description of the Preferred Embodiments, the patentees conclude with: *it will be appreciated that a variety of*

design modifications may be made to the connecting means specifically described above without departing from the scope of the appended claims. Col. 4, ll 38-42.

C. The ID Erroneously Read in the Limitation of Four Projecting Rims

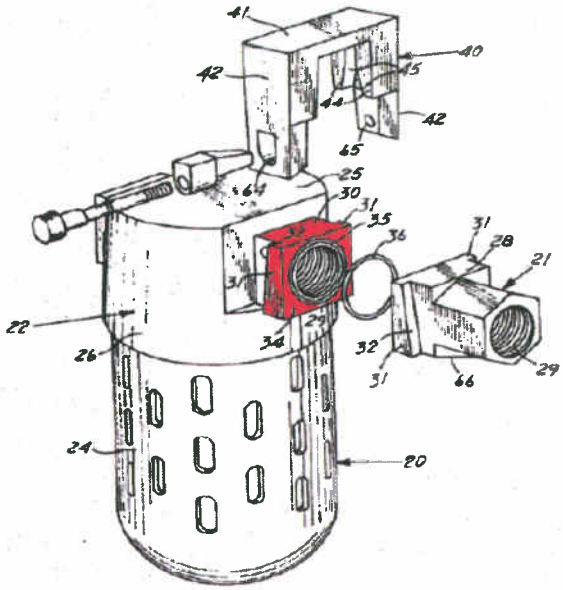
Having established that nothing in the intrinsic evidence compels the presence of four projecting rims on the flange; that the only place the concept of four projecting rims can be found is the preferred embodiment, and that no extrinsic evidence supports a definition of flange with four projecting rims; there is only one possible conclusion about the presence of this limitation in the ruling of the ID: the ALJ impermissibly read that limitation in. A long line of cases from this Court, including *Phillips*, prohibits this practice. *Phillips* at 1323.

Even the ALJ in his ID recognized that the patentee made it clear that there were many ways to practice the invention and that there was no need to limit the configuration of the flange to the preferred embodiments. A33.

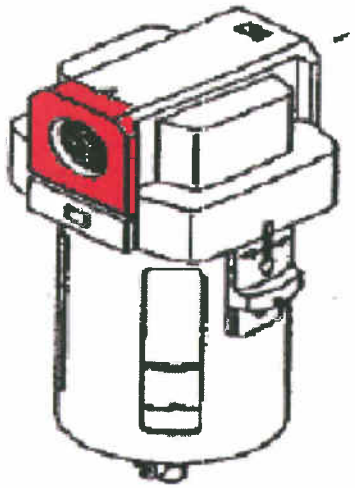
D. The SMC Connector is Adapted to Engage a Generally Rectangular Ported Flange

If the proper construction of *flange* includes the structure on the body of the FRL in *Ribble*, as Trumper testified, and as both the intrinsic and extrinsic evidence support; then the SMC connector is obviously adapted to engage such a flange. One look at the SMC flange compared to the *Ribble* flange, makes this so.

The two flanges are nearly identical. Both have projections for attachment on both sides with flattened tops and bottoms.



RX-020 (Ribble patent)



RPX-010 (SMC FRL Unit)

Even if this Court adopts the ID's construction requiring four projecting rims on a flange, Norgren's exhibit CPX 8 and the demonstration at trial of how the SMC connector fit that flange with four projecting rims; proves that SMC connector is also adapted to engage this type of flange. A1304-A1305; A1310.

E. If the SMC Connector does not Literally Infringe; it infringes under the Doctrine of Equivalents

Trumper, Tomita and Wiskamp were once again in accord on the issue of how the SMC clamp worked to connect the flanges (SMC called its flanges "mounting ears"). Their description of the function of the SMC clamp mirrors that for the '392 preferred embodiment in column 3 of the specification. Tomita and

Trumper testified that "wings" of the SMC clamp grabbed the "ears" of the structure on the side of the SMC FRLs and squeezed them together for a fluid tight seal. A1578, A1582, A1586, A1694-A1695.

Using the term *flange* to describe the two-projection structure on the sides of the SMC FRLs, Wiskamp gave virtually the same testimony about the SMC connector as Tomita and Trumper. A1304, A1318-A1323.

"Function, way, result"[7] are established by comparing what Trumper and Tomita described with the functional description in Column 3:

> The bolt **4** is then tightened whereupon the tapered walls of the sections **1c** and **3** co-operate with bevelled (sic) portions **26', 26"** and **30', 30"** of the flanges **26** and **30** thereby urging the latter into sealing engagement with the spacer **2** and bringing ports **27** and **31** into sealed communication with one another via the bore **10** formed in the spacer **2**. Column 3, ll 47-53.

If the term "wings" is changed to "tapered walls," and "ears" to flanges; the action is identical: two sides of the clamp with specially adapted walls engage two projecting opposite sides of the flange and urge or squeeze them together to form a fluid-tight seal.

IV. Claim 9

A fair reading of claim 9 is that the only thing it adds is that the *fluid flow elements* that the patented clamp connects are *compressed air- conditioning units*.

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[7] *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 25 (1997).

There is no doubt the air conditioning units are limitations to claim 9. In fact the language of claim 9 compels this interpretation: . . .*wherein said fluid flow elements* ***include*** *a first air-conditioning unit and a second air-conditioning unit* . . . To infringe claim 9, the patentee would necessarily have to prove that the accused infringer had the patented clamp and two air-conditioning units attached to one another in combination. Otherwise, claim 9 makes no sense and is entirely superfluous. Each patent claim is presumed not to be superfluous. *Versa Corp. v. Ag-Bag International Ltd.*, 392 F.3d 1325, 1330 (Fed. Cir. 2004).

Hence, each combination of an SMC connector connected to two FRLs infringes claim 9.

CONCLUSION AND RELIEF SOUGHT

The term *flange* in the '392 patent is a connecting feature that is formed on the sides of fluid-flow elements to be connected by the patented clamp that is shaped in such a way as to allow the clamp to receive at least part of the flange within it, then to permit the clamp to urge the faces of the flanges together for fluid tight communication between the ports found in the flanges. A *flange* may have any number or no projecting rims as long as it functions as the previous sentence states. The feature of four projecting rims on the *flange* is found only in the preferred embodiments of the '392 patent and is not required as a limitation in any of the patent's claims. The ID impermissibly read in the four projecting rims

limitation. The order of the ITC affirming the ID should be reversed and a construction of *flange* consistent with the definition given in this paragraph ordered. Based on this construction and the construction of other terms in the ID, a finding of literal infringement against SMC should be entered along with appropriate sanctions according to statute.

If the Court does not find literal infringement, a finding of infringement under the doctrine of equivalents should be entered against SMC.

Claim 9 should be correctly construed to include the limitation that the patented clamp be connected to two air conditioning units and a finding made that any SMC clamp so connected literally infringes claim 9.

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