IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

Alltech Associates, Inc., Plaintiff, v. **Teledyne Instruments, Inc.,** d/b/a **Teledyne Isco,** Defendant.	Civil Action No. 13-425-RGA

MEMORANDUM OPINION

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ANDREWS, U.S. District Judge:

Pending before this Court is the issue of claim construction of disputed terms found in U.S. Patent No. 8,115,930, U.S. Patent No. 8,305,581, U.S. Patent No. 8,305,582, U.S. Patent No. 8,314,934 (collectively the "Alltech patents"), as well as disputed terms found in U.S. Patent No. 7,419,598 and U.S. Patent No. 8,414,773 (collectively the "Teledyne patents").

I. BACKGROUND

On March 15, 2013, Plaintiff Alltech filed a patent infringement action against Defendant Teledyne. (D.I. 1). On June 19, 2013 Teledyne answered and filed a counterclaim, alleging infringement of its patents. (D.I. 9). The Court has considered the parties' Joint Claim Construction Brief on Alltech's Patents (D.I. 71) and the parties' Joint Claim Construction Brief for the Teledyne Patents-in-Suit. (D.I. 69). The Court heard oral argument on July 8, 2014.

II. LEGAL STANDARD

"It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). "'[T]here is no magic formula or catechism for conducting claim construction.' Instead, the court is free to attach the appropriate weight to appropriate sources 'in light of the statutes and policies that inform patent law.'" *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at *1 (D. Del. Sept. 4, 2013) (quoting *Phillips*, 415 F.3d at 1324). When construing patent claims, a matter of law, a court considers the literal language of the claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977-80 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). Of these sources, "the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term."

Phillips, 415 F.3d at 1315 (internal quotations and citations omitted).

Furthermore, "the words of a claim are generally given their ordinary and customary meaning . . . [which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e. as of the effective filing date of the patent application." *Phillips*, 415 F.3d at 1312-13 (internal citations and quotation marks omitted). "[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent." *Id.* at 1321 (internal quotation marks omitted). "In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314 (internal citations omitted).

A court may consider extrinsic evidence, which "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises," in order to assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art and how the invention works. *Id.* at 1317-19 (internal quotation marks and citations omitted). However, extrinsic evidence is less reliable and less useful in claim construction than the patent and its prosecution history. *Id.*

Finally, "[a] claim construction is persuasive, not because it follows a certain rule, but because it defines terms in the context of the whole patent." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that "a claim interpretation that would exclude the inventor's device is rarely the correct interpretation." *Osram GmbH v. Int'l Trade Comm'n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (internal quotation marks and citation omitted).

III. CONSTRUCTION OF DISPUTED TERMS

A. Terms from the Alltech Patents

1. "during a/the/said chromatographic run"

   a. *Plaintiff's proposed construction*: "During a/the/said chromatographic run" as used throughout claims 1 and 14, refers, in each claim, to a single chromatographic run. As used in the context of the claim elements in which it appears, the phrase means that (a) all response values and information that make up the composite signal are generated during that single run, and (b) collection of components occurs during that single run triggered by changes originating in the composite signal during that single run.

   b. *Defendant's proposed construction*: plain and ordinary meaning.

   c. *Court's Construction*: plain and ordinary meaning.

2. "collecting the one or more components from the stream in a fraction collector during the chromatographic run in response to a change in the composite signal during said chromatographic run" ('930 Patent claim 1) / "a fraction collector operatively adapted to collect a fraction in response to a change in the composite signal during said chromatographic run" ('930 Patent claim 14)

   a. *Plaintiff's proposed construction*: "collecting the one or more components from the stream in a fraction collector during the chromatographic run triggered by changes originating in the composite signal during that chromatographic run"

   b. *Defendant's proposed construction*: plain and ordinary meaning.

   c. *Court's Construction*: plain and ordinary meaning.

3. "collecting the one or more components from the stream in a fraction collector during the chromatographic run in response to a change in at least one of said signals during said chromatographic run" ('581, '582, and '934 Patents claim 1) / "a fraction collector to collect at least one fraction corresponding to one of said components in response to a change in at least one of said signals during said chromatographic run" ('581, '582, and '934 Patents claim 13)

   a. *Plaintiff's proposed construction*: "collecting the one or more components from the stream in a fraction collector during the chromatographic run triggered by a change originating in at least one of said signals during that chromatographic run"

   b. *Defendant's proposed construction*: plain and ordinary meaning.

c. *Court's Construction*: plain and ordinary meaning.

The parties argued these terms together and agree, for the most part, that they rise and fall together. Alltech's main argument is that because the claims repeatedly use the phrase "during a chromatographic run," "[i]t means that all component detection, all response/signal generation, and everything that triggers the actual collection of the separated components occur during the same, single run." (D.I. 71 at p. 8). Teledyne responds that the only word Alltech is trying to construe is "during" and that Alltech's proposed construction is merely an attempt to redefine the invention in order avoid invalidity problems down the road. (D.I. 71 at p. 10).

Whether or not this is the case, I agree with Teledyne's proposed construction. The claims contain the transitional phrase "comprising," and therefore Alltech's constructions are too limiting. During means during. It has a plain and ordinary meaning with which every juror is familiar. Alltech's proposed construction is merely an attempt to rewrite the claim and define what is and is not covered. Claim construction is not the time or the place to argue validity.

4. "composite signal"

   a. *Plaintiff's proposed construction*: "a single signal comprising detector response values from at least one destructive detector and at least one non-destructive detector or values generated from such at least one destructive and at least one non-destructive detector response values using mathematical calculations or algorithms"

   b. *Defendant's proposed construction*: "a single signal generated by a mathematical, rather than logical, combination of two or more response values"

   c. *Court's Construction*: "a single signal generated by combining two or more response values using mathematical calculations or algorithms"

Both parties agree that the composite signal is a single signal and that it may be calculated using mathematical calculations or algorithms. Alltech argues that it should be construed to be generated by combining a response value from a destructive detector and a

response value from a non-destructive detector. Such a construction would be redundant of the claim language.[1] The Court's construction attempts to combine the parties' (not materially) different constructions in an understandable manner.

5. "obliterate"

    a. *Plaintiff's proposed construction*: "to obscure or mask the response value otherwise generated by a component in the optical absorbance detector"

    b. *Defendant's proposed construction*: "to destroy completely "

    c. *Court's Construction*: "to destroy completely "

There is no dispute that the plain meaning of obliterate is "to destroy completely." The parties further agree that a signal is not destroyed when a stronger signal "masks or obscures" that signal. But the claims do not talk about signals being obliterated. The claims describe "chromaphoric solvents that obliterate a positive detection of the response value of the one or more sample components..." (Claim 1 and 13 of the '582 patent). It is the positive detection which is obliterated. If the patentee had meant "obscured" or "masked," he was free to use those words. He chose "obliterate." I see no need to disturb that choice.

6. "actively controlling fluid flow"

    a. *Plaintiff's proposed construction*: "controlling fluid flow so that the flow rate of either a primary flow or a secondary flow diverted from the first flow can be independently controlled"

    b. *Defendant's proposed construction*: "managing fluid flow to a detector in a manner that is adjustable during a chromatographic run"

    c. *Court's Construction*: "controlling fluid flow in a manner that is adjustable during a chromatographic run"

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[1] *See* '930 patent claim 1 ("generating a composite signal during the chromatographic run from at least one destructive detector, including at least one evaporative particle detector; and at least one non-destructive detector"); '930 patent claim 14 ("a composite signal that is a single signal from response values generated by at least one destructive detector, including at least one evaporative particle detector, and at least one non-destructive detector").

7. "active splitter"

    a. *Plaintiff's proposed construction*: "a device for diverting fluid from a primary flow to a secondary flow in a manner that the flow rate of the secondary flow can be controlled independently from changes in the primary flow"

    b. *Defendant's proposed construction*: "a device that diverts a portion of one stream to another and that is adjustable during a chromatographic run"

    c. *Court's Construction*: "a device that diverts a portion of one stream to another and that controls fluid flow in the secondary stream in a manner that is adjustable"

8. "actively moving"

    a. *Plaintiff's proposed construction*: "diverting fluid from a primary flow to a secondary flow in a manner that the flow rate of the secondary flow can be controlled independently from changes in the primary flow"

    b. *Defendant's proposed construction*: "the action performed by an active splitter"

    c. *Court's Construction*: "the action performed by an active splitter"

The parties agree that these terms should be construed together. The parties also agree that an active splitter or shuttle pump performs the act of actively controlling/moving. The parties also agree that the active splitter or shuttle pump controls for process variables in order to maintain a constant fluid flow. The disagreement is limited to whether the active splitter or shuttle pump must be adjustable during a chromatographic run. Alltech's main objection with Teledyne's proposed constructions is that the claims do not require that the active splitter or shuttle pump be adjusted during a chromatographic run.

I do not think that Teledyne's proposed constructions require that the active splitter or shuttle pump be adjusted during the run. But they must have that capability. Alltech stated that "[the claim] merely requires that the secondary flow can be set at a rate that will be maintained independently of the primary flow, so as to be protected from pressure fluctuations or changes in the rate of the primary flow." (D.I. 71 at p. 58). If the primary flow slows, then the active splitter

or shuttle pump must counteract this drop. In order to counteract a decrease in flow, it must do something. Whether that is an increase in pressure applied to the primary flow or shuttling fluid faster, there is an adjustment.

I do not think there is an actual disagreement here. Teledyne admitted that its "proposal does not always require that the splitter pump activate, deactivate, or otherwise adjust the splitter pump in every chromatographic run. Rather, Teledyne's definition only requires that the device actively controlling the fluid have the capacity to make those adjustments in response to variables during a run." (D.I. 71 at p. 61). Therefore I construe these terms such that the pump has the capacity to be adjusted during a run.

B. Terms from the Teledyne Patents

9. "solvent-level indicating signal"

    a. *Plaintiff's proposed construction*: "signal that conveys a calculation of the height, depth, or volume of solvent"

    b. *Defendant's proposed construction*: plain and ordinary meaning.

    c. *Court's Construction*: plain and ordinary meaning.

Alltech's proposed construction is too limiting. The specification indicates that the solvent level indicating signal need not convey a calculation, but may simply indicate low solvent. For example, the patent describes that "a low solvent signal may be provided to inform the operator that the solvent is low." ('598 patent at 7:50-52). This is contrasted with the preferred embodiment, where the solvent level "is determined in terms of volume." ('598 patent at 55-56). I agree with Alltech that some sort of calculation is used to determine whether to display a low solvent signal. I do not agree that the signal itself necessarily conveys a calculation.

10. "initiating a replenishment process"

a. *Plaintiff's proposed construction*: "initiating a process in which more solvent is added to the solvent reservoir"

b. *Defendant's proposed construction*: "providing more solvent"

c. *Court's Construction*: "initiating a process in which more solvent is provided"

The dispute here is whether an operator may provide more solvent by switching out the reservoir, as Teledyne contends, or whether the process is limited to refilling the same reservoir, as Alltech contends. Both readings find intrinsic support in the specification. For instance, in the Summary of the Invention, it states that, "When the solvent is low, a solvent-level indicating signal is provided to the operator so that additional solvent can be added by the operator before the system runs out or additional solvent is automatically added." ('598 patent at 1:60-64). Because Teledyne's contention finds support in the specification, I must construe the term so as not to exclude operator replacement.

11. "immersing a solvent compatible portion of a pressure sensor or bubbler for generating the solvent-level indicating signal in the solvent reservoir before the chromatographic run"

    a. *Plaintiff's proposed construction*: "immersing a solvent compatible portion of a pressure sensor or bubbler for generating the solvent-level indicating signal in the solvent reservoir before the chromatographic run without requiring calibration"

    b. *Defendant's proposed construction*: plain and ordinary meaning.

    c. *Court's Construction*: "immersing a solvent compatible portion of a pressure sensor or bubbler for generating the solvent-level indicating signal in the solvent reservoir before the chromatographic run without requiring calibration"

The dispute here is whether the patentee disclaimed calibration during the prosecution of the patent. Based on the prosecution history, I find that the inventor disclaimed methods which required calibration. Specifically, during the prosecution of then-pending claim 2 of the '598 patent (which eventually issued as claim 1), the inventor described that, "One of the problems

that is solved is the reduction of errors that occurs during the monitoring of solvent level using the most popular method of monitoring solvent level. Some of these errors occur because the operator must enter the initial volumetric capacity of the container and volume of solvent in the container into the microcontroller at the start of the chromatographic run." (D.I. 54-13 at 18 ¶ 12). The inventor stated that one of the inventive features was, "the ability to make volume measurements of the solvent without knowing the shape of the reservoir or density of the solvent." (D.I. 54-13 at 18 ¶ 14). The inventor characterized the prior art, stating that, "both of these systems require calibration and they are non-analogous prior arts unrelated to liquid chromatography." (D.I. 54-13 at 19 ¶ 16). The inventor then distinguished the invention because, "The prior art does not teach nor suggest...a method of determining low solvent regardless of...container shape. All of the cited prior art requires calibration." (D.I. 54-13 at 22 ¶ 29).

These statements demonstrate that the inventor disclaimed calibration. The statements were drawn to the invention as a whole, and not to individual claims. Therefore, I find that the patent does not cover a process which requires calibration. Teledyne argues that it is improper to import limitations from the prosecution history into the claims. Yet this rule does not apply in the face of a clear disclaimer, like that which is present here. *See RFID Tracker, Ltd. v. Wal-Mart Stores, Inc.*, 342 Fed. Appx. 628, 632 (Fed. Cir. 2009). The inventor described his invention as not requiring calibration. Therefore the claims must be construed accordingly.

12. "target time of run resolution"

    a. *Plaintiff's proposed construction*: "value for a target resolution (as defined) to be obtained by the chromatographic system in a target time (as defined) of a chromatographic run. Both resolution and time are a factor in the value."

    b. *Defendant's proposed construction*: "the target resolution obtained in a desired run time"

    c. *Court's Construction*: "value for a target resolution to be obtained by the

chromatographic system in a target time of a chromatographic run. Both resolution and time are a factor in the value."

Teledyne argues that this term either not be construed at all or be construed as "the target resolution obtained in a desired run time." Alltech's proposed construction is taken directly from the prosecution history. The inventor's words are generally best, and I see no reason to adopt Teledyne's proposed construction. The "target time of run resolution" is an "input" which is received, and which is "based on a target resolution in a target time." ('773 patent claim 5). Alltech's proposed construction accurately reflects this.

13. "gradient profile"

a. *Plaintiff's proposed construction*: "a gradient slope and a flow rate of the solvent that is higher than the standard rate of flow"

b. *Defendant's proposed construction*: "a gradient slope and the flow rate of the solvent"

c. *Court's Construction*: "a gradient slope and the flow rate of the solvent"

The argument over this term is whether the flow rate must be higher than the standard rate of flow. The specification only uses the term "gradient profile" once outside of the claims, stating, "In one embodiment, at least one gradient run is programmed with at least one gradient profile for a sample. The gradient profile uses a rate of flow of solvent higher than the standard rate of flow." ('773 patent at 3:25-28). The parties agree that a gradient profile is a gradient slope along with the flow rate of the solvent. Alltech argues that one sentence in the specification limits the flow rate to "higher than the standard rate of flow." I do not think that this one sentence is enough to limit the claims. The language is not definitional, and is prefaced by the phrase, "in one embodiment," which contemplates other embodiments. The specification is silent on the flow rates in those other embodiments. I therefore adopt Teledyne's proposed construction.

14. "performing chromatography on the sample with the at least one gradient run for samples in which the target resolution and target time of run resolution were met with the at least one gradient run"

    a. *Plaintiff's proposed construction*: "performing chromatography on the sample(s) that were used in the gradient run that met (or exceeded) the target resolution and target time of run resolution during the gradient run. During this step of 'performing chromatography,' the flow rates are increased compared to the rates used during the gradient run."

    b. *Defendant's proposed construction*: plain and ordinary meaning.

    c. *Court's Construction*: "The performing step specifies two different actions for two different scenarios: one for samples in which the target resolution and time are met, and another for samples in which the target resolution is exceeded. If the targets are met by a programmed run, then those parameters are used. If the target resolution is exceeded, then the flow rate is increased so that the target time can be reduced."

In the briefing Teledyne proposed that this phrase be given its plain and ordinary meaning, and then went on to describe that meaning. (D.I. 69 at p. 70). Alltech replied that the description was correct and agreed to use the language directly from Teledyne's briefing. (D.I. 69 at p. 71). Teledyne objects because "[s]uch an approach would not be useful to a jury." (D.I. 69 at p. 72). I disagree. In fact, such a description is probably more helpful to a jury than merely changing the particular words used in the claim. Such a description translates the claim into an easily understood narrative. If the parties were to agree on appropriate language, they would be more than welcome to. As they appear to be incapable of doing so, I will construe this term as above.

15. "pilot run"

    a. *Plaintiff's proposed construction*: "trial chromatographic run that is used to optimize parameters for a subsequent chromatographic run solvent"

    b. *Defendant's proposed construction*: "prior chromatographic run"

    c. *Court's Construction*: plain and ordinary meaning.

This term needs no construction. Juries are well aware of the use of the term "pilot" to

refer to a "trial" or "test" run. Construing the term is unnecessary.

IV. CONCLUSION

Within five days the parties should submit a proposed order, consistent with this opinion, suitable for submission to the jury.