United States District Court,
D. Delaware.

PRAXAIR, INC. and Praxair Technology, Inc,
Plaintiffs.
v.
ATMI, INC and Advanced Technology. Materials, Inc,
Defendants.

No. Civ. 03-1158-SLR

Nov. 8, 2005.

Jack B. Blumenfeld, Rodger Dallery Smith, II, Morris, Nichols, Arsht & Tunnell, Wilmington, DE, for Plaintiffs.

Frederick L. Cottrell, III, Robert H. Richards, III, Alyssa M. Schwartz, Richards, Layton & Finger, Wilmington, DE, Keith A. Walter, Jr., Nicholas L. Coch, Theodore J. Mlynar, Pro Hac Vice, for Defendants.

MEMORANDUM ORDER

ROBINSON**, J.**

At Wilmington this 8th day of November, 2005, having heard oral argument and having reviewed the papers submitted in connection with the parties' proposed claim construction;

IT IS ORDERED that the disputed claim language in United States Patent Nos. 6,045,115 ("the '115 patent") and 6,007,609 ("the '609 patent") as identified by the above referenced parties, shall be construed consistent with the tenets of claim construction set forth by the United States Court of Appeals for the Federal Circuit in Phillips v. AWH Corp., 415 F.3d 1303 (Fed.Cir.2005), as follows:

1. The '115 patent **claim 18**

a. "An apparatus for controlling the liquid phase discharge of pressurized fluids from the outlet of a pressurized tank containing toxic hydridic or halidic compounds, the apparatus comprising". The court concludes the preamble does not read additional limitations into the claims.

Defendants argue that tanks, according to definitions found in extrinsic evidence, are larger than cylinders and defendants ask the court to read into the claims the limitation that a pressurized tank means a storage container that is larger than a cylinder. "Extrinsic evidence ... may not be used to ... contradict the import of other parts of the specification." FN1 The patent specifications use the terms "tank" and "cylinder" interchangeably and make no distinction in size or otherwise between a tank and a cylinder. FN2 Both of

these terms are also used synonymously with "container." Because the intrinsic evidence at bar is not ambiguous, the extrinsic evidence identified by defendants is entitled to no weight. Id. Defendants' construction for "tank" and its added limitation into the claims is rejected.

FN1. Vitronics Corp. v. Conceptronic. Inc., 90 F.3d 1576, 1583-84 (Fed.Cir.1996).

FN2. '609 patent, col. 1, ll. 7-8, '115 patent, col. 1, ll. 6-7, United States Patent No. 5,937,895 ("the '895 patent"), col. 1, ll. 6-7 ("[S]torage containers such as pressurized tanks or cylinders."); '609 patent, col. 4, ll. 5-6 ("Preferably the flow restriction has a location inside the cylinder or tank that supplies gas."); '115 patent, col. 7, ll. 4-7 ("FIG. 3 shows a tank that uses a modified form of a capillary defined by glass rods ... centered at the radial and axial midpoint of [the] cylinder [ ].").

b. "A container for holding a pressurized fluid in a liquid phase and an at least partial gas phase". A container for holding a pressurized fluid that is both liquid and gas.

As stated above, the court declines to construe "container" to be a pressurized tank, which is larger than a cylinder. "Container," "cylinder" and "tank" are used synonymously and no size limitations or differences exist in the patent specifications.

Defendants also argue that, as a matter of common sense, in order to hold pressurized fluid, a container must be a vessel closed with a valve assembly and, therefore, "container" must be construed to include a valve assembly. Consistent with the claims and specification, the court construes "container," "cylinder" or "tank" as separate from the valve assembly. The specification refers to a "container" and a "container valve" or a "cylinder" and a "cylinder valve" as separate parts of the invention.FN3 In addition, "[o]ther claims of the patent in question, both asserted and unasserted, can be valuable sources of enlightenment as to the meaning of a claim term." FN4 Claim 1 of the '609 patent claims "a container." Claim 11 of the '609 patent claims "a cylinder and a valve assembly." The patentees clearly recognized that the two were distinct parts of the invention. Finally, as a matter of common sense, a container can hold a pressurized gas when closed with something other than a valve assembly; therefore, the limitation is not read into the claims. FN5

FN3. '115 patent, col. 4, ll. 9-11; '895 patent, col. 3, ll. 53-54 ("For effectiveness the container valve or the container itself will house the regulator."). Figure 1 of the '115 patent shows a cylinder and a cylinder head valve as separate components of the invention.

FN4. Philips, 415 F.3d at 1314.

FN5. "[E]veryday examples of containers that hold pressurized fluid ... use components like a plug or cap instead of a valve assembly (e.g., a soda bottle)." (D.I. 189 at 7)

c. "An outlet port for releasing pressurized gas from the container". An opening in the container for releasing pressurized gas from the container.

As discussed above, the court declines to read "container" to include the valve assembly. Therefore, defendants' construction that the outlet port must be in the valve assembly as opposed to the container is not persuasive. Figure 2 of the '115 patent labels the outlet port as exiting the valve assembly, but this is only one embodiment of the invention; the court will not read limitations from the preferred embodiments into the claims. Claims of a patent may only be limited to a preferred embodiment by the express declaration of the patentee.FN6 No such declaration exists here.FN7

FN6. Karlin Technology, Inc. v. Surgical Dynamics, Inc., 177 F.3d 968, 973 (Fed.Cir.1999).

FN7. *See, e.g.,* Playtex Products, Inc. v. Procter & Gamble Co., 400 F.3d 901, 908 (Fed.Cir.2005) (concluding that "[c]laim 1, properly construed, is not limited to the flat surfaces depicted in the drawings").

d. "A gas flow path defined at least in part by the outlet port for delivering pressurized gas from the container and a conduit defining an inlet located at about the axial mid-point of the container and at about radial mid-point of the container". The pressurized gas from the container first enters a passageway, which starts near the center of the container, when looking at the container both lengthwise and from its top or bottom, and then follows a path to the outlet port for delivery of the pressurized gas from the container.

The court does not agree with defendants that "conduit" must be construed to mean "a tube." Consistent with the claims and specification, "conduit" shall be construed to mean "passageway." The doctrine of claim differentiation "create [s] a presumption that each claim in a patent has a different scope." FN8 Claim 18 of the '115 patent claims "a conduit." Claim 20 then states, "[t]he apparatus of claim 18 wherein the conduit comprises a tube...." Therefore, a tube must be a subset of conduit, making claim 20 narrower than claim 18.

FN8. Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1187 (Fed.Cir.1998).

e. "A restrictor in the form of a restricted flow path along at least a portion of the gas flow path". The gas flow path includes a structure that serves to restrict the rate of flow of pressurized gas.

Defendants argue that the restrictor must be defined in terms either of "severely limits the discharge of gas," as used once in the '115 patent to describe an embodiment of the invention,FN9 or using the values of gas flow disclosed for arsine in the preferred embodiments.FN10 The court, however, will not read limitations of the preferred embodiments into the claims.FN11

FN9. '115 patent, col. 3, ll. 18-21 ("The mass flow rate is typically at or above the maximum desired flow rate at which the container must supply gas to the end use device, but yet restrictive enough to severely limit any accidental discharge rate.").

FN10. '115 patent, col. 5, ll. 14-16 ("For purposes of explanation and not limitation this invention is further described in the context of the delivery of arsine gas.").

FN11. Playtex, 400 F.3d at 906.

2. The '115 patent **claim 20**

a. "The apparatus of claim 18 wherein the conduit comprises a tube having an internal diameter that does not exceed 0.2 mm". Consistent with the claims and specification, and as discussed above, "conduit" is construed to mean "passageway." No further construction is required.

3. The '609 patent **claim 1**

a. "An apparatus for controlling the discharge of pressurized fluids from the outlet of a container, the apparatus comprising". No construction necessary as the preamble does not read additional limitations into the claim.

b. "A container for holding a pressurized fluid in an at least partial gas phase". A container for holding a pressurized fluid that is part or all gas.

As discussed above, the court declines to construe "container" as a tank or cylinder plus a valve assembly. While the patents disclose embodiments with a valve assembly, the claims are not so limited.

c. "An outlet port for delivering pressurized fluid from the container". An opening in the container for delivering gas phase pressurized fluid from the container.

Consistent with the claims and specification, "pressurized fluid" is construed to mean "gas phase pressurized fluid." The patent only discusses the removal of a gas from the container.FN12 While liquid phase fluid may exist in the tank, it is vaporized before exiting the container. Removal of any liquid in the container through the flow restrictor is avoided.FN13 Therefore, the phrase "pressurized fluid," as used in reference to the substance exiting the invention, is construed, for clarity, to mean "gas phase pressurized fluid." FN14

FN12. '609 patent, col. 3, ll. 54-58 ("The apparatus of this invention provides a flow restriction in the storage container ... that will positively limit the discharge of gas phase fluid from the container....").

FN13. *See* '609 patent, col. 4, ll. 12-21 ("[T]he location of the inlet to the flow restrictor can aid in controlling fluid discharge. A particularly beneficial arrangement will locate the inlet to the flow restrictor in a manner that prevents liquid discharge from the container ... [L]ocating the inlet to the flow restrictor at the midpoint of the ... cylinder prevents the discharge of liquid ... whether the cylinder is located upside down or right side up. Further, locating the inlet at the radial center of the cylinder will prevent liquid discharge for any vertical or horizontal position....").

FN14. *See* '609 patent, col. 3, l. 57.

d. "A fluid flow path defined at least in part by the outlet port for delivering pressurized fluid from the container". The gas phase pressurized fluid follows a path to the outlet port for delivery from the container.

e. "A flow restrictor in the form of a tube defining multiple capillary passages along at least a portion of the

fluid flow path". The path followed by the gas phase pressurized fluid includes a structure in the form of a tube with multiple narrow passages that serve to restrict the rate of flow.

Plaintiffs argue that "capillary passages" must be construed to mean "passages that exhibit capillary action." The court declines to so interpret the claims. The patent specification references capillary action briefly in the "Detailed Description of the Preferred Embodiments." FN15 This reference, however, focuses on describing the size of the capillary passages in order to restrict the flow of gas.FN16 In fact, certain embodiments of the invention go to great lengths to avoid liquid fluid entering the flow restrictor. Therefore, as used in the specification and the claims, the term "capillary" means "pertaining to or resembling a hair; fine and slender." FN17

FN15. '609 patent, col. 6, ll. 58-61 ("The multiple small diameter bores will desirably limit the transport of gas phase fluids to very low rates while permitting the higher flow of liquids at higher flow mass rates due to their higher density."); '115 patent, col. 6, ll. 34-39) ("Whether provided by single or multiple small diameter bores.. suitable restrictors of this type will desirably limit the transport of gas phase fluids to very low rates while permitting the flow of liquids at higher rates by capillary action.").

FN16. '609 patent, col. 7, ll. 1-2 ("The internal diameter of the capillaries will ordinarily not exceed 20 micrometers. For a single capillary, this diameter limits the rate that the 250 psi saturation pressure of arsine can force arsine through the tube to only 60 milligrams per minute."); '115 patent, col. 6, ll. 32-34 ("Out of the previously mentioned restrictors, some form of capillary sized flow area offers the most flexibility and reliability as the flow restrictor.").

FN17. THE AMERICAN HERITAGE DICTIONARY 236 (2nd Ed.).

4. The '609 patent **claim 2**

a. "The apparatus of claim 1 wherein the flow restrictor defines at least seven capillary passages". The tube of claim 1 has at least seven narrow passages within it.

5. The '609 patent **claim 6**

a. "The apparatus of claim 1 wherein the tube is located within the container". No construction necessary.

6. The '609 patent **claim 7**

a. "The apparatus of claim 6 wherein the tube defines an inlet located at about the axial midpoint of the container". The tube of claim 1 has an inlet located near the center of the container, when looking at the container lengthwise.

7. The '609 patent **claim 8**

a. "The apparatus of claim 7 wherein the tube locates the inlet at about the radial midpoint of the container". The tube of claim 1 has an inlet located near the center of the container, when looking at the container from its top or bottom.

D.Del.,2005.
Praxair, Inc. v. ATMI, Inc.

Produced by Sans Paper, LLC.