

1 **I. BACKGROUND**

2 The inventions claimed in both the ‘581 and ‘110 Patents involve a self-contained tire
3 repair kit. Both are aimed at allowing an ordinary motorist to repair and inflate a flat tire while the
4 tire remains on the wheel of the vehicle.² The kits allow the motorist to avoid the danger and hassle
5 of replacing a flat tire with a spare alongside a busy highway or a desolate road and provide for
6 more space in the trunk of a vehicle than would be required ordinarily to store a spare tire.

7 The ‘581 Patent was filed on October 31, 2002 and assigned to Interdynamics, Inc.
8 (“Interdynamics”). On April 29, 2011, Interdynamics sold the ‘581 Patent to AMI. The claimed
9 invention has never been sold in the United States.

10 The ‘110 Patent was filed on February 8, 2005 and cites to the ‘581 Patent as prior art. It
11 was assigned to TEK. During the prosecution, original dependent claim 10 was amended to
12 incorporate features of the claim on which it depended and thereafter was allowed.³ Claim 10 is
13 written in means-plus-function format. In addition, new claims were added parallel to that amended
14 claim and other claims dependent on it, but the means-plus-function terms of the original claims
15 were written in structural terms to avoid the means-plus-function language and were reported as
16 such to the examiner. Those claims also were allowed.⁴

17 **II. LEGAL STANDARDS**

18 Seven years after the Federal Circuit’s seminal *Phillips* decision,⁵ the cannons of claim
19 construction are now well-known even if not perfectly understood by parties and courts alike. “To
20 construe a claim term, the trial court must determine the meaning of any disputed words from the
21 perspective of one of ordinary skill in the pertinent art at the time of filing.”⁶ This requires a careful
22 review of the intrinsic record, comprised of the claim terms, written description, and prosecution
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24 ² See, e.g., ‘581 Patent, Summary of Invention, Col. 2:15-18.

25 ³ See Mathiowetz Decl., Ex. C at 4-5 (Docket No. 26).

26 ⁴ See *id.*, Ex. D.

27 ⁵ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc).

28 ⁶ *Chamberlain Group, Inc. v. Lear Corp.*, 516 F.3d 1331, 1335 (Fed. Cir. 2008).

1 history of the patent.⁷ While claim terms “are generally given their ordinary and customary
 2 meaning,” the claims themselves and the context in which the terms appear “provide substantial
 3 guidance as to the meaning of particular claim terms.” Indeed, a patent’s specification “is always
 4 highly relevant to the claim construction analysis.”⁸ Claims “must be read in view of the
 5 specification, of which they are part.”⁹ Although the patent’s prosecution history “lacks the clarity
 6 of the specification and thus is less useful for claim construction purposes,” it “can often inform the
 7 meaning of the claim language by demonstrating how the inventor understood the invention and
 8 whether the inventor limited the invention in the course of prosecution, making the claim scope
 9 narrower than it would otherwise be.”¹⁰ The court also has the discretion to consider extrinsic
 10 evidence, including dictionaries, scientific treatises, and testimony from experts and inventors.
 11 Such evidence, however, is “less significant than the intrinsic record in determining the legally
 12 operative meaning of claim language.”¹¹

13 The court notes that it may adjust its construction of the claims at issue if later-introduced
 14 evidence compels an alternative construction.¹²

15 **III. ANALYSIS**

16 **A. ‘581 Patent**

1.	TERM	CONSTRUCTION
	“an air flow path from said compressor adapted to be connected to a tire” <i>Claims 1, 2, 3, 10, 21, 27, and 43</i>	A route from a compressor to a tire into which, when tire sealant is received, a mixture of air and tire sealant is directed.

21 ⁷ *Id.*; *Phillips*, 415 F.3d at 1312 (internal citations omitted).

22 ⁸ *Phillips*, 415 F.3d at 1312-15.

23 ⁹ *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff’d*, 517
 24 U.S. 370 (1996). *See also Ultimax Cement Mfg. Corp v. CTS Cement Mfg. Corp.*, 587 F. 3d 1339,
 1347 (Fed. Cir. 2009).

25 ¹⁰ *Phillips*, 415 F.3d at 1317 (internal quotations omitted).

26 ¹¹ *Id.* (internal quotations omitted).

27 ¹² *See Pressure Prods. Medical Supplies, Inc. v. Greatbatch Ltd.*, 599 F.3d 1308, 1316 (Fed. Cir.
 28 2010) (citing *Pfizer, Inc. v. Teva Pharm., USA, Inc.*, 429 F.3d 1364, 1377 (Fed. Cir. 2005)).

1 SSI urges that the above claim be given its plain and ordinary meaning. The specification
2 teaches that when the compressor is activated and a container of sealant is in place, compressed air
3 is forced into the container. This pushes tire sealant out of the container and into the receptacle and
4 then into the air flow path air and into the tire.¹³ Based on this description, SSI argues that an “air
5 flow path” describes a course or route for compressed air, not limited to any particular hardware or
6 pathway, and which is consistent with its use in the claims.¹⁴ SSI disputes that the patent discloses
7 simultaneous or distinct streams of compressed air that force sealant out of the container and also
8 “continuously” or “directly” direct air into the tire. As an alternative to plain meaning, SSI
9 proposes a construction that describes the route as including “at least one conduit or hose for
10 directing the compressed air.”

11 TEK contends that the embodiments and prosecution history support an interpretation of the
12 claim language that is based on the mixing of air with tire sealant described in the specification. In
13 the Notice of Allowability, the examiner distinguished the ‘581 Patent from prior art based on the
14 air/sealant mixture that results from air being forced into the container of sealant and sealant being
15 pushed out and into the air flow path to the tire.¹⁵ Because the applicant did not challenge the
16 examiner’s statements, TEK argues that there was acquiescence to such a construction.¹⁶ TEK
17 further argues that the air/sealant mixture relied on by the examiner is based on a continuous or
18 direct air flow path from the compressor through a receptacle to a tire. As an example, TEK points
19 to the embodiment of Figure 13 which shows that when the compressor is activated, air flows from
20 the compressor, into and out of the receptacle, to the tire. Tire sealant escapes from the pressurized

21 ¹³ See ‘581 Patent, Col. 2:31-67; Col. 4:65-67; Col. 5:1-22; Col. 6:6-18; Col. 7:13-14; Col. 7:66;
22 Col. 8:4; Figs. 3-5, 9-14.

23 ¹⁴ ‘581 Patent, claim 1 (“air from said air compressor is forced into the container and pushes tire
24 SSI out of the container, into said receptacle, into said air flow path, and into the tire”); claim 46
25 (“wherein said air flow path comprises a hose attachable to a tire valve”); claim 47 (“wherein said
26 air flow path comprises a tire valve adapter stem.”).

27 ¹⁵ The Notice of Allowability states: “The Scott reference pertains to a tire sealant dispenser with a
28 pressurized source of sealant (i.e. no air/sealant mixing), the Thurner reference pertains to another
29 sealant dispenser with a housing, compressor and a flexible bag-type sealant source (i.e. again no
30 air/sealant mixing) and the Savidge reference pertains to tire balancing device with air/pulverant
31 material mixing (i.e. not sealant).” See Docket No. 26, Ex. F.

¹⁶ See *Torpharm, Inc. v. Ranbaxy Pharmaceuticals, Inc.*, 336 F.3d 1322, 1330 (Fed. Cir. 2003).

1 container and is emitted into the air flow path and “entrained with the air heading towards the
2 tire.”¹⁷

3 The court agrees with TEK that the claim term requires construction because the language
4 alone does not convey what a person of skill in the art would understand from the intrinsic record
5 as a whole.¹⁸ The claim language, written description, embodiments, and examiner’s statements in
6 the Notice of Allowability all contemplate an air flow path into which air and tire sealant are being
7 mixed. The claims themselves refer to air from the air compressor that “pushes tire sealant out of
8 the container, into said receptacle, into said air flow path,” an exhaust in the receptacle that
9 “receives air and tire sealant from the container and directs the air and tire sealant into said air flow
10 path,” and “tire sealant [that] leaves the container and is entrained into said air flow path.”¹⁹ The
11 specification further explains how one skilled in the art might understand the device: “[w]hen a
12 container of tire sealant is received in the receptacle, the intake directs air from the air flow path
13 substantially into the container, and the exhaust receives air and tire sealant from the container and
14 directs the air and tire sealant into the air flow path.”²⁰ The examiner’s statement in the Notice of
15 Allowability moreover suggests that this understanding of the invention, predicated on the mixing
16 of air and sealant, is essential to the design’s patentability.

17 The record does not address, however, where the air path lies and whether that path must be
18 continuous or “direct” from the compressor to the tire, as TEK contends. Although air and tire
19 sealant are being mixed along or entrained into a common path (“an air flow path”), nothing in the
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21 ¹⁷ ‘581 Patent, Col. 7:45-58.

22 ¹⁸ See *Phillips*, 415 F.3d at 1313 (“Importantly, the person of ordinary skill in the art is deemed to
23 read the claim term not only in the context of the particular claim in which the disputed term
24 appears, but in the context of the entire patent, including the specification.”); *Brookhill-Wilk 1,
LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1300 (Fed. Cir. 2003) (noting “the context of the
25 surrounding words of the claim also must be considered in determining the ordinary and customary
26 meaning of those terms”).

27 ¹⁹ See ‘581 Patent, claim 1 (“air from said air compressor is forced into the container and pushes
28 tire sealant out of the container, into said receptacle, into said air flow path”; claim 3 (“said exhaust
receives air and tire sealant from the container and directs the air and tire sealant into said air flow
path”); claim 43 (“tire sealant leaves the container and is entrained into said air flow path”).

²⁰ *Id.*, Col. 2:45-50.

1 claim language or specification precludes additional hoses or pathways through which air also
 2 might travel. In fact, the specification suggests some dichotomy between the container with sealant,
 3 when received in the receptacle, and the air flow path.²¹ One of ordinary skill in the art would
 4 understand that the air flow path is a route for the compressed air to take, which may include or
 5 encompass air being diverted through the container, and which does include air that is being mixed
 6 with tire sealant. The court thus finds that elements of both parties’ proposed constructions are
 7 appropriate to describe the plain meaning of the term. “An air flow path from said compressor
 8 adapted to be connected to a tire” will be construed as “a route from a compressor to a tire into
 9 which, when tire sealant is received, a mixture of air and tire sealant is directed.”

2.	TERM	CONSTRUCTION
	“a receptacle formed in said housing” <i>Claims 1 and 27</i>	Plain and ordinary meaning.

14 SSI contends that the above claim term should be given its plain and ordinary meaning
 15 because the meaning is readily apparent even to lay people and involves little more than the
 16 application of commonly understood words. The plain meaning of the claim term also is supported
 17 by the specification.²² TEK responds that the plain and ordinary meaning fails to capture the full
 18 meaning imputed by the claim language and specification.

19 Claim 1 describes “a receptacle formed in said housing in communication with said air flow
 20 path adapted to sealingly receive a container of tire sealant” and explains that compressed air
 21 “pushes tire sealant out of the container, into said receptacle, into said air flow path, and into the
 22 tire.”²³ TEK contends that its proposed construction of “an enclosure formed within and as an

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 24 ²¹ See ‘581 Patent, Col. 2:42-50 (describing an intake that “receives air *from* the air flow path” and
 25 an exhaust that “*returns air to* the air flow path” such that “[w]hen a container of tire sealant is
 26 received in the receptacle, the intake *directs air from the air flow path substantially into the*
 27 *container*, and the exhaust receives air and tire sealant from the container and *directs the air and*
 28 *tire sealant into the air flow path*”) (emphasis added).

²² See ‘581 Patent, Col. 2:31-67; Col. 3:7-14; Col. 4:26-41, 65-67; Col. 5:1-18, 33-34; Col. 7:5-9,
 14-32, 45-51; Col. 7: 66-Col. 8:4; Figs. 3-5, 9-14.

²³ *Id.*, Col. 8:12-19.

1 integral part of the housing that sealingly receives air and/or tire sealant” necessarily denotes the
 2 volumetric shape capable of receiving and exhausting air and sealant that is taught. It disputes that
 3 “receptacle” alone sufficiently denotes a volumetric shape. TEK further contrasts “receptacle” as
 4 used in the claim language from “port,” which the specification describes may be integral with the
 5 housing or may be a separate element.²⁴

6 The court is not persuaded that the claim term requires further construction. The word
 7 “receptacle” connotes depth to the extent that it is able to receive a container of tire sealant and
 8 provide a pass-through for sealant leaving the container and entering into the air flow path. The
 9 court accepts SSI’s contention that a person skilled in the art would understand “receptacle” as
 10 something that receives or contains something. The court does not find that substituting
 11 “enclosure” helps to clarify the claim meaning. Nor does the claim language or specification
 12 require that that the receptacle be integral to the housing. The receptacle’s function, according to
 13 the claim language and specification, is to connect to the flow of compressed air and to sealingly
 14 receive a container of sealant. The patent uses the word “integral” elsewhere both to specify the
 15 placement of a component (“a button or pressure relief valve integral with receptacle 14 or port
 16 40...”)²⁵ or to specify an alternative structure (“portions of or all of the port may be made integral
 17 with the housing”).²⁶ These uses suggest that the absence of “integral” in the description of the
 18 receptacle is not happenstance. Without more, the court will not impose “integral” as a limitation.²⁷
 19 The claim term will be given its plain and ordinary meaning.

3.	TERM	CONSTRUCTION
	“air from said air compressor is forced into the container and pushes tire sealant out of the container, into said receptacle,	Plain and ordinary meaning.

24 ²⁴ See *id.*, Col.3:35-42; 7:5-8.

25 ²⁵ ‘581 Patent, Col. 6:55-57.

26 ²⁶ *Id.*, Col. 7:5-9.

27 ²⁷ See *Phillips*, 415 F.3d at 1323 (cautioning against reading limitations that may be present in the
 28 specification into the claim).

1	into said air flow path”	
2	<i>Claims 1, 27, 39, and 42</i>	
3	4. “exhaust receives air and tire sealant from the container and directs the air and tire sealant into said air flow path”	Plain and ordinary meaning.
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5	<i>Claim 3, 30, 38 and 45</i>	

Subject to the court’s construction of “air flow path” as explained above, the court finds that these claim terms have a plain and ordinary meaning that is supported by the claim language and specification. TEK’s proposed constructions²⁸ rely on the same reasoning as TEK urged with respect to claim No. 1. For example, TEK argues that for claim term No. 3 to have literal meaning wherein sealant is pushed out of the container into the air flow path, and for there to be air/sealant mixing as the examiner stated, there must be a continuous flow of air from the compressor to the tire through the receptacle. As explained earlier, the mixing of air and sealant in the air flow path does not necessarily support TEK’s limitation of a continuous or direct path. The terms therefore will be given their plain and ordinary meaning, taking into account the adopted construction for “an air flow path.”

	5. TERM	CONSTRUCTION
17	“said intake and said exhaust are opposite substantially the same opening of a container of tire sealant”	The intake and exhaust opening are on opposite sides of the opening of the container (when a container of sealant is received in the receptacle).
18	<i>Claims 10 and 33</i>	
19	6. “said opening substantially opposes said intake and said exhaust”	
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21	<i>Claims 13 and 36</i>	

The parties first dispute whether these terms may be construed at all. TEK contends that the phrase “the same opening” of a container of tire sealant is indefinite because there is no antecedent

²⁸ For term No. 3, TEK proposes the following construction: “Compressed air pushes tire sealant out of the container into the receptacle [or port, depending on use in claim] and into the compressed air stream flowing directly from the air compressor to the tire.”

For term No. 4, TEK proposes: “The exhaust receives compressed air that has been diverted into the bottle and tire sealant that has been forced from the bottle by the diverted compressed air and delivers them into the compressed air stream flowing directly from the air compressor to the tire.”

1 basis for it. Although claim 10 is dependent on claim 2, which itself is dependent on claim 1,
2 claims 1 or 2 make no reference to the “opening” indicated by claim 10. The lack of antecedent
3 basis, however, does not render either claim term indefinite, because a person skilled in the art
4 would understand from the context of the claims that the containers described in the specification
5 have an opening that is sealingly received in the receptacle.²⁹ That opening is discussed in several
6 places in the specification and described as “preferably provided with a single opening.”³⁰

7 Turning to the construction, SSI contends that the claim terms relating to intake and exhaust
8 should be given their plain and ordinary meaning. In the alternative, SSI would interpret the
9 phrases to mean that “the intake and exhaust openings point in (or, alternatively, face) a different
10 direction from the opening of a container of tire sealant.” TEK proposes what it asserts is
11 essentially the plain meaning – the intake and exhaust openings are on opposite sides of the
12 opening of the container. TEK points to Figure 5 to support that construction. Figure 5 and the
13 accompanying description show an intake nozzle and internal bore terminating in intake hole 46,
14 and an exhaust nozzle and internal bore terminating in exhaust hole 47.³¹ The specification teaches
15 that intake hole 46 lies within the bottle when a container of sealant is secured to the receptacle,
16 while exhaust hole 47 lies outside the opening of the bottle. Hence, the openings are on opposite
17 sides of the container of sealant.

18 SSI argues that this construction is contradicted by the language of claim 33, depending
19 from claim 31, which refers to the intake and exhaust nozzles (that point in a different direction
20 from the container opening as shown in Figures 4 and 5) and not to “intake hole 46” or “exhaust
21 hole 47.” Under Section 112, a claim in dependent form must be construed to incorporate the
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24 ²⁹ See *Energizer Holdings, Inc. v. Int’l Trade Comm’n*, 435 F.3d 1366, 1370 (Fed. Cir. 2006)
(holding a claim is not invalid for indefiniteness despite the lack of antecedent basis where a person
of skill in the art would be able to understand the claim scope from the specification).

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26 ³⁰ See, e.g., ‘581 Patent, Col. 5:23-49 (referring to bottle 16 as “preferably provided with a single
opening 17” which is sealed and may be installed into receptacle 14); Col 5:63-66 (describing the
benefit of this invention as using a bottle with only one opening requiring only one seal). See also
27 *id.*, Col. 10:53-63 (claim 37 for a plastic bottle housing having an opening).

28 ³¹ See *id.*, Col. 5:8-16; Fig. 5.

1 limitations of the reference claim.³² By SSI’s reasoning, the intake and exhaust terms in claims 10,
 2 13, 33 and 36 – which refer merely to “said intake” and “said exhaust” – would be bound by the
 3 reference in dependent claim 33 to the intake and exhaust nozzles described in claim 31. Yet
 4 claims 10, 13, and 36 are also dependent claims, none of which refer back to exhaust nozzle or
 5 intake nozzle limitations. Claims 10 and 13 depend from claim 2, which describes generally “an
 6 intake” and “an exhaust” in the context of the receptacle; claim 36 depends from claim 28, which
 7 describes the same in the context of the port.³³

8 The court agrees with TEK that a person skilled in the art, reviewing the terms at issue and
 9 in the context of the entire specification, would understand “opposite substantially the same
 10 opening of a container” to refer to the openings of the exhaust and intake located in the receptacle.
 11 This interpretation is consistent with Figures 4 and 5 as well as the specification. Similarly, for the
 12 opening to “substantially oppose[.]” the intake and exhaust when the container is received in the
 13 receptacle (claim 13) or the bottle is secured to the port (claim 36), the exhaust and intake openings
 14 located in the receptacle must serve as the point of reference. The court will adopt TEK’s proposed
 15 construction.

7.	TERM	CONSTRUCTION
	“port” <i>Claims 27-28, 30-33, 37-41, and 45</i>	An enclosure that may be formed within and as an integral part of the housing or as a separate structure that sealingly receives air and/or tire sealant.

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 20 SSI contends that the above claim term should be given its plain and ordinary meaning.
 21 Because “port” is a commonly understood, non-technical word used according to its ordinary
 22 meaning and understood as such by those of ordinary skill in the art, SSI argues that “port” need
 23 not be construed. Further, there is nothing in the claim language, specification, or file history that
 24 narrows or alters the plain meaning.

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 27 ³² See 35 U.S.C. § 112, ¶ 4.

28 ³³ See ‘581 Patent, Col. 8:19-25; 8:55-59; 9:5-7; 10:47-42.

1 TEK contends that a port shares many of the same characteristics as a receptacle except that
2 it may or may not be formed in the housing. It points to the following examples: (1) “[a] receptacle
3 and/or port is formed in the housing in communication with the air flow path”³⁴; (2) “[t]he port
4 may be a separate attachment that can be secured to a container of tire sealant, or it may be integral
5 with a disposable container of tire sealant”³⁵; (3) “[s]ealant receiving port 40, best illustrated in
6 Figs. 3-5 and 9, is disposed in receptacle 14 for the purposes of injecting air from air compressor
7 60 into bottle 16 when the bottle is disposed in receptacle 14 and for accepting tire sealant forced
8 out of the bottle by way of the high pressure compressed air injected therein”³⁶; (4) “In Fig. 11,
9 port 140 is substantially similar to port 40 described above. However, port 140 is not necessarily
10 physically connected to the housing of the device.”³⁷ TEK disputes that the plain meaning of port is
11 adequate, because as with receptacle, port as used in the specification is a structure that has a
12 volume and is not simply “an opening for intake or exhaust of a fluid.”³⁸

13 The court agrees with TEK. Although the purpose of the specification is to teach and not to
14 impose a further limitation on the relevant claim, “port” alone does not connote the extent of the
15 structure described in the patent. According to the specification, “port” may be integral to the
16 housing or may be a separate structure.³⁹ Indeed, the specification describes embodiments that are
17 not integral to the housing.⁴⁰ The port as claimed comprises an intake and an exhaust for
18 compressed air and/or sealant.⁴¹ The port further serves to sealingly receive or secure a bottle or
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20 ³⁴ *Id.*, Col. 2:35-36.

21 ³⁵ *Id.*, Col. 3:40-43.

22 ³⁶ *Id.*, Col. 4:67-Col. 5:5.

23 ³⁷ *Id.*, Col. 7:17-19.

24 ³⁸ Docket No. 27 at 17-18 (TEK’s Responsive Claim Construction Br.) (quoting Webster’s Ninth
25 New Collegiate Dictionary (1988 ed.)).

26 ³⁹ *See, e.g.*, ‘581 Patent, Col. 7:5-8; Col. 3:40-43.

27 ⁴⁰ *See, e.g., id.*, Col. 7:48-51.

28 ⁴¹ *See, e.g., id.*, Col. 5:8-15; 10:6-12; 10:21-25.

1 container of tire sealant.⁴² The claim term will be construed as: “an enclosure that may be formed
2 within and as an integral part of the housing or as a separate structure that sealingly receives air
3 and/or tire sealant.”

8.	TERM	CONSTRUCTION
	<p data-bbox="365 493 836 535">“a reservoir formed in said housing”</p> <p data-bbox="365 567 487 609"><i>Claim 42</i></p>	<p data-bbox="917 472 1518 546">A “reservoir” is a cavity where sealant collects separate from the container.</p>

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8 SSI contends that the above claim term should be construed to avoid any misconception
9 that “receptacle,” “port,” and “reservoir” refer to the same structure. SSI proposes that reservoir be
10 construed as “a cavity where sealant collects separate from the container.”

11 TEK responds that as used in Claim 42, which reads on the embodiment of Figure 12,
12 “reservoir” has the characteristics and functionality of a receptacle to which a container of sealant
13 has been mounted if the device is used for repair, or onto which a cap is screwed if the device is
14 used for inflating a tire. The reservoir must be in connection with the air flow path, allowing
15 compressed air to pass through the reservoir if there is no sealant in the reservoir, or to push sealant
16 out of the reservoir, into the air flow path if there is sealant in the reservoir.⁴³ TEK therefore
17 concludes that reservoir should be construed the same as receptacle.

18 Even though “reservoir” and “receptacle” serve similar functions in different embodiments,
19 the specification teaches that they are different structures. To construe both in the same way
20 ignores this difference and might confuse a jury as to the role of each structure. Both receptacle and
21 port are adapted to receive a container or bottle of tire sealant, whereas as used in claim 42, the
22 reservoir simply is “adapted to receive tire sealant.” The specification teaches that after removing
23 the cap, sealant is poured directly into the reservoir, into which air is directed from the compressor
24 and out of which is exhausted both air and tire sealant. As with “receptacle,” the specification may
25 allow for but does not require that the reservoir be formed integral to the housing.

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27 ⁴² See, e.g., *id.*, Col. 5:26-36; 10:26-38; 10:47-51; 12:23-27.

28 ⁴³ See *id.*, Col. 7:33-44.

1 The court therefore agrees with SSI that “cavity” appropriately describes the structure into
2 which sealant is poured. The court will adopt SSI’s proposed construction of a “reservoir” as a
3 cavity where sealant collects separate from the container.

4	9.	TERM	CONSTRUCTION
5		“air from said air compressor is forced 6 into said reservoir and pushes tire 7 sealant out of said reservoir, into said air 8 flow path” <i>Claim 42</i>	Plain and ordinary meaning.

9 SSI contends that the above claim term should be given its plain and ordinary meaning.
10 Consistent with its earlier arguments, TEK contends that there is a direct and continuous stream of
11 compressed air from the compressor to the tire, as evidenced by air and sealant mixing as the
12 sealant is pushed out of the reservoir and into the tire.

13 As with claim term Nos. 3 and 4, the claim language, specification, and file history do not
14 support a construction that the compressed air flows “directly” from the air compressor to the tire.
15 A person of skill in the art would understand the claim in context to mean simply what it says –
16 that compressed air moves through the reservoir and pushes sealant out along with the air. As
17 modified by the court’s construction of “air flow path,” the claim term will be given its plain and
18 ordinary meaning.

19	10.	TERM	CONSTRUCTION
20		“tire sealant leaves the container and is 21 entrained into said air flow path” <i>Claims 43 and 44</i>	Tire sealant leaves the container and is drawn 22 into the air flow path.

23 SSI contends that the above claim term should be given its plain and ordinary meaning.
24 TEK responds that the claim term should be construed because the words “entrained into said air
25 flow path” are given special meaning by the written description. As used in Claims 43 and 44,
26 which read on the embodiment of Figure 13, sealant leaves an already pressurized container when
27 the switch on the container is activated; sealant is not forced out by a stream of compressed air, as
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1 in other embodiments. The specification states in relevant part: “[d]epressing the
 2 switch/button/lever [on container 316] allows the contents of the container to leave the container ...
 3 When switch 319 is also activated, tire sealant escapes container 316 and is emitted into the air
 4 flow path and entrained with the air heading towards the tire.”⁴⁴ TEK thus proposes a construction
 5 that describes tire sealant leaving the container as being “swept into the compressed air stream
 6 flowing directly from the air compressor to the tire.”

7 The court agrees that there is a distinction between tire sealant leaving a pressurized
 8 container upon activation of a switch or being forced out by the entry of compressed air. It is
 9 sufficient, however, that the claim term uses “leaves” for this purpose, and which TEK does not
 10 dispute. The parties disagree whether a jury will understand the plain meaning of “entrained” as
 11 being “drawn in and transported (as solid particles or gas) by flow of fluid.” Because “entrained” is
 12 not in common usage and the specification teaches that the air leaving the pressurized container is
 13 effectively drawn into and mixed with the flow of air, the court will adopt the following
 14 construction: [t]ire sealant leaves the container and is drawn into the air flow path. As the court
 15 explained earlier, the claim language and intrinsic record do not require the air flow path to be
 16 direct.

17 **B. ‘110 Patent**

1. TERM	CONSTRUCTION
“connecting means” <i>Claims 1-5, 11-15, and 21-25</i>	[C]onnecting means is subject to 35 U.S.C. §112(6). The function of “connecting means” is connecting the container to the compressor assembly and to an inflatable article for repair or inflation. The corresponding structures of the connecting means are: (1) a first hose connecting the container to the compressor assembly and fitted in its free end (i.e., opposite the end connected to the

28 ⁴⁴ ‘581 Patent, Col. 7:45-58.

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		compressor) with a fast-fit, e.g., lever operated, coupling, and a second hose connecting the container to a valve of the inflatable article; (2) a first hose connecting the dispenser unit to the compressor assembly with a fitting, and a second hose connecting the container assembly to the inflatable article; and (3) equivalents thereof.
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The parties agree that the claim term is a means-plus-function term under 35 U.S.C. §112(6). Construction of a means-plus-function limitation requires the court first to determine the claimed function, and second to identify the corresponding structure in the written description of the patent that performs that function.⁴⁵ The parties disagree on both the function performed and the corresponding structure.

Claim 1 describes the function of connecting means in pertinent part below:

1. A kit for inflating and repairing inflatable articles; the kit comprising a compressor assembly (2), a container (3) of sealing liquid, and connecting means (4,5) for connecting the container to the compressor assembly (2) and to an inflatable article for repair or inflation.⁴⁶

TEK contends that the function, as stated in the claim, is to connect the container to the compressor assembly and to an inflatable article for repair or inflation. SSI responds that its proposed construction additionally reflects the actual function performed by the claim element, i.e., the function of “connecting means” is to provide air from the compressor to the container and to connect the container to an inflatable article.

The court agrees with TEK that the claim term need not include the limitation that the function is to provide air from the compressor to the container. Although providing air may indeed be the practical effect or result, nothing in the claim language or specification requires this limitation be imported into the claim meaning. The function will be defined as “connecting the container to the compressor assembly and to an inflatable article for repair or inflation.”

⁴⁵ See *Applied Medical Resources Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1332 (Fed. Cir. 2006) (quoting *Carroll Touch, Inc. v. Electro Mech. Sys., Inc.*, 15 F.3d 1573, 1576 (Fed. Cir. 1993)).

⁴⁶ ‘110 Patent, Col. 5:43-47.

1 The corresponding structure to “connecting means” is identified in the claim by reference to
2 elements 4 and 5 in the figures. These are described in the specification as follows:

3 Kit 1 substantially comprises an electric compressor assembly 2; a container 3 of sealing
4 liquid; a first hose 4 connecting container 3 to compressor assembly 2, and a second hose 5
5 connecting container 3 to a valve (not shown) of the tyre.⁴⁷

6 The specification goes on to describe a particular fitting for first hose 4:

7 First fitting 50 is connected to hose 5, which, when not in use, may be wound about the
8 casing ...; and second fitting 53 is connected to compressor 2 by hose 4. Conveniently,
9 hose 4 is longer than required for connection to fitting 53, and is fitted on its free end with
10 a fast-fit, e.g. lever-operated, coupling 58. Hose 4 is therefore normally connected to
11 second fitting 53, but can be detached easily and connected directly to the article, e.g. a
12 tyre, ball, dinghy, etc., if this simply needs inflating and not repair.⁴⁸

13 The parties disagree whether the fast-fit coupling is a necessary component of the corresponding
14 structure.

15 TEK contends that the initial description in the specification, based on the reference to
16 elements 4 and 5, adequately defines the structure of the connecting means. TEK argues that SSI’s
17 proposed limitation to include the fast-fit coupling is too narrow because one of ordinary skill in
18 the art would understand that multiple types of connections can be used to connect a hose to a
19 compressor. The plain language of the specification demonstrates this by referring to the “lever-
20 operated,” fast-fit coupling as an example only (using “e.g.” and not “i.e.”) for “convenience” and
21 not as a necessary part of the structure.⁴⁹ TEK further points to the embodiment depicted in Figure
22 7 in which TEK argues that there is no need for a fast-fit coupling because the hose connecting the
23 container to the compressor assembly does not get removed, even if the device is to be used solely
24 for inflation and not for repair.

25 SSI responds that the corresponding structure includes not only first hose 4 and second hose
26 5, but also the specific fittings disclosed in the specification. SSI argues that because the
27 specification discloses the specific fittings, that disclosure must be considered in determining the
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⁴⁷ *Id.*, Col. 2:44-48 (emphasis added).

⁴⁸ *Id.*, Col. 4:4-13 (emphasis added).

⁴⁹ *See* Col. 4:7-11 (“Conveniently, hose 4 is longer than required for connecting to fitting 53, and is fitted on its free end with a fast-fit, e.g. lever-operated, coupling 58.”).

1 corresponding structure.⁵⁰ That similar types of connectors can be used goes to the issue of
2 “equivalents” to the claimed structure, not to its inclusion in the first instance. SSI further points
3 out that TEK previously included “associated fittings” in its proposed claim construction.

4 SSI is correct that “under § 112 every structure disclosed in the specification and its
5 equivalents should be considered.”⁵¹ But a structure disclosed in the specification is a
6 “corresponding” structure “only if the specification or prosecution history clearly links or
7 associates that structure to the function recited in the claim.”⁵² Here, the defined function of
8 connecting means is connecting the container to the compressor assembly and to an inflatable
9 article for repair or inflation. Because the connection to the inflatable article includes both repair
10 and inflation, the fast-fit, e.g., lever-operated coupling described in the specification is clearly
11 linked to the function of connecting the hose to the inflatable article. As TEK points out, however,
12 the fast-fit coupling is identified in the best mode section of the specification, and “lever-operated”
13 is provided only as an example. The specification corresponding to Figure 7 describes a second
14 embodiment in which there remains a connecting means between the container, compressor
15 assembly, and inflatable article, but no particular fitting type is specified. Yet the unspecified
16 fitting is clearly linked to the connecting means function.⁵³ The court therefore will construe
17 “connecting means” to have encompass two corresponding structures: (1) a first hose connecting
18 the container to the compressor assembly and fitted in its free end (i.e., opposite the end connected
19 to the compressor) with a fast-fit, e.g., lever operated, coupling, and a second hose connecting the
20 container to a valve of the inflatable article; and (2) a first hose connecting the dispenser unit to the
21 compressor assembly with a fitting, and a second hose connecting the container assembly to the
22 inflatable article.

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25 ⁵⁰ See Docket No. 28 at 11-12 (SSI’s Responsive Claim Construction Br.) (citing *Altiris, Inc. v.*
Symantec Corp., 318 F.3d 1363, 1377 (Fed. Cir. 2003)).

26 ⁵¹ *Altiris, Inc.*, 318 F.3d at 1377.

27 ⁵² *Id.* at 1375 (quoting *B. Braun Med. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed.Cir.1997)).

28 ⁵³ See ‘110 Patent, Col. 5:10-16; 5:24-29.

2.	TERM	CONSTRUCTION
	“an outer casing ... defining a seat for the container of sealing liquid.”	Plain and ordinary meaning.
	<i>Claims 1-5, 11-15, and 21-25</i>	

TEK contends that the claim term should be given its plain meaning as would be understood not only by one of ordinary skill in the art but also by a lay person. The seat for a container of liquid is shown in Figures 1, 2 and 4 and is described consistently in the specification as being contained in the outer casing. For example, the Disclosure of Invention states: “[T]he kit ... being characterized by comprising an outer casing housing said compressor assembly and defining a seat for the container of sealing liquid...”⁵⁴ In addition, the best mode section describes the seat within the housing as follows:

Casing 6 is substantially parallelepiped-shaped and, at one longitudinal end, defines a seat 7 for housing container 3 upside down. More specifically, seat 7 is bounded laterally by a substantially semicylindrical end wall 10 of casing 6, and at the bottom by a circular base 14 projecting from the end wall 10.⁵⁵

SSI responds that the plain meaning fails to capture a limitation that is made clear by the intrinsic record – that when the container is housed in the seat, it is maintained “functionally connected” to the compressor assembly. For example, claim 1 states in part that “the container, when housed in said seat (7), is maintained functionally connected to said compressor assembly (2).”⁵⁶ In addition, in the Background of the Art, the patentee distinguishes the proposed kit from other prior art tire repair kits by noting that they were not functionally connected to the compressor when housed in the casing and required connection of the separate parts before use.⁵⁷

SSI’s position, however, is based on an incomplete reading of the claim language. The reference in claim 1 to the container, when housed in the seat, being “maintained functionally connected” to the compressor assembly is itself part of a longer chain in which the claim identifies

⁵⁴ ‘110 Patent, Col. 2:9-14.

⁵⁵ *Id.*, Col. 2:52-56.

⁵⁶ *Id.*, Claim 1, Col. 5:51-55.

⁵⁷ *Id.*, Col. 1:52-54.

1 “container connecting means (4, 40) for stably connecting said container to said compressor
2 assembly” and the means by which the container, when housed in the seat, is maintained
3 functionally connected. It therefore would be improper to import this function into the definition of
4 what in the patent is a structure only. The same is true for the prior art distinction made by the
5 patentee, where the container and the compressor must be connected before use. The claim term
6 shall be given its plain and ordinary meaning.

3.	TERM	CONSTRUCTION
	<p data-bbox="363 667 883 737">“said container being housed removably in said seat”</p> <p data-bbox="363 772 743 802"><i>Claims 1-5, 11-15, and 21-25</i></p>	<p data-bbox="912 667 1276 697">Plain and ordinary meaning.</p>

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TEK contends that the claim term should be given its plain meaning. SSI contends that its proposed construction, adding “easily” to indicate that the container is “capable of being easily removed from its seat, i.e., without having to disassemble any part of the tire repair kit to remove it from its seat,” is necessary to enforce a distinction that the patentee made over prior art. The claimed invention explains that the dispenser unit is detachably connected to the container and that the container includes an integral valve to ensure the container is closed fluid tight when detached from the kit.⁵⁸ SSI argues that TEK cannot now construe the claims in a manner that eliminates this distinction. The parties also dispute whether a second embodiment in the patent contradicts SSI’s proposed limitation by teaching removal of the dispenser unit from the kit along with the container, rather than removal of the container from the seat without disassembly of any part of the kit.⁵⁹

The court finds that “said container being housed removably in said seat” requires no further construction. The prior art distinction based on removability is not lost in the plain meaning. Nothing in the specification or prosecution history uses the word “easily,” although a person of skill in the art might understand “removable” to indicate that the container may be removed requiring some effort less than disassembly. The section of the specification that provides

⁵⁸ *Id.*, Col. 2:57-63.

⁵⁹ *See id.*, Col. 5:1-6.

1 that the container “is ready for use at all times, i.e. fitted permanently to [the] kit” such that the
 2 dispenser unit “is preferably detachable” from the casing and “carried by” the container similarly
 3 does not shed light on the ease or difficulty of removing the container from the housing. Rather,
 4 that description merely explains that the container with its integrated valve device constitutes an
 5 independent sealed unit regardless of whether or not it is connected to the dispenser, and that the
 6 dispenser unit may be detached from the casing and carried with the container.⁶⁰ Regardless of
 7 whether the dispenser unit is detachable from the casing, the container is “housed removably” in its
 8 seat. The term shall be given its plain and ordinary meaning.

4.	TERM	CONSTRUCTION
	“container connecting means” <i>Claims 1-5, 11-15, and 21-25</i>	[C]ontainer connecting means is a means plus function term to be construed pursuant to 35 U.S.C. §112(6). The function is “to stably and functionally connect the container to the compressor.” The corresponding structures are the hose and dispenser unit housed inside a recess in the base of the casing, and equivalents thereof.

17 The parties agree that the above claim term is a means-plus-function term subject to 35
 18 U.S.C. §112(6). While their proposed functions are similar, they are stated somewhat differently.

19 The claim language in relevant part states: “... and by comprising container connecting
 20 means (4,40) for stably connecting said container to said compressor assembly (2), so that the
 21 container, when housed in said seat (7), is maintained functionally connected to said compressor
 22 assembly (2).⁶¹ TEK contends that the claim term states a dual function: to stably and to
 23 functionally connect the container to the compressor assembly. SSI’s proposed construction omits
 24 “stably” and includes the limitation “when the container is housed in the seat.”⁶² TEK argues that

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 26 ⁶⁰ *Id.*, Col. 4: 56-58.

27 ⁶¹ *Id.*, Col. 5:51-55.

28 ⁶² SSI’s proposed alternative construction, however, includes the dual language. *See* Docket No. 28, n. 5 (“Alternatively, SSI proposes that the claimed function is ‘to stably connect the container

1 the additional clause adds nothing to the function to be performed since the claim already recites
2 that the “container (3) [is] housed removably in said seat (7).”

3 Because the claim language “ties both functions to the same means-plus-function element”
4 – “stably” and “functionally” – it is appropriate that “container connecting means” be construed to
5 include both.⁶³ The court further agrees with TEK that the additional language is not necessary to
6 clarify the function of the container connecting means because a person skilled in the art would
7 understand that the function as it appears in the context of the entire claim.

8 The parties also disagree whether the corresponding structure is limited to the hose and the
9 dispenser unit or further includes the structure that houses the dispenser unit. TEK argues that the
10 structure for holding the dispenser unit is a separate element that is not part of the container
11 connecting means. SSI responds that the structure for holding the dispenser unit is a structural
12 component which is necessary for performing the claimed function. SSI thus proposes that the
13 corresponding be identified as “a hose (4) and a dispenser unit (40) housed inside a recess in the
14 base of the casing.”⁶⁴

15 The court agrees with SSI that the structure for housing the dispenser unit is a necessary
16 component for performing the function of container connecting means. As stated in claim 1, the
17 container connecting means performs its function when the container is housed in the seat. A
18 person skilled in the art would understand the specification to disclose the housing for the
19 dispenser unit as a structure that enables the claimed function to perform as described.⁶⁵

20 to the compressor assembly, so that the container, when housed in the seat, is maintained
21 functionally connected to said compressor assembly.”).

22 ⁶³ See *Baran v. Medical Device Technologies, Inc.*, 616 F.3d 1309, 1317 (Fed. Cir. 2010) (holding
23 that the claim language recites two types of function, both tied to the same claim element, even
though the placement of one function is before the means-plus-function claim term at issue).

24 ⁶⁴ See *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999) (noting
25 the court may not incorporate structure from the written description beyond that necessary to
perform the claimed function).

26 ⁶⁵ See *Telecordia Technologies, Inc. v. Cisco Systems, Inc.*, 612 F.3d 1365, 1376 (Fed. Cir. 2010)
27 (“The question is not whether one of skill in the art would be capable of implementing a structure
28 to perform the function, but whether that person would understand the written description itself to
disclose such a structure.”) (quoting *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1338
(Fed. Cir. 2008)).

Specifically, “[tire repair] kit 1 also comprises a dispenser unit 40, which is housed stably but detachably inside a recess 44 in base 16 of casing 6, and is connected detachably to container 3 to fit it, upside down, to casing 6 (FIGS. 1, 5 and 6).”⁶⁶ The recessed housing for the dispenser unit thus provides in part a means for the container to connect to the compressor.⁶⁷ The corresponding structures will be defined as the hose and dispenser unit housed inside a recess in the base of the casing.

5.	TERM	CONSTRUCTION
	“a three-way valve” ⁶⁸	A valve with one input and two outputs.
	<i>Claims 1-5, 11-15, and 21-25</i>	

TEK contends that the above claim term should be given its plain meaning which is “the input of a three-way valve,” a three-way valve being a valve with one input and two outputs. SSI proposes construction of the entire phrase not limited to the input but including the output as well. SSI’s proposed construction also would include language linking the three-way valve to the enabling positions of the selector described in the specification.⁶⁹ Alternatively, SSI accepts TEK’s description of a valve with one input and two outputs.

It is appropriate to construe the phrase “a three-way valve” rather than solely that pertaining to the valve input, which risks leaving a jury with an incomplete understanding of the structure. As shown diagrammatically in Figure 7 as element 81 and described in the written description, the three-way valve has an input connected to the compressor assembly, an output to the conduit

⁶⁶ ‘110 Patent, Col. 3:40-43.

⁶⁷ See *Telecordia Technologies, Inc.*, 612 F.3d 1365, 1376-77 (Fed. Cir. 2010) (finding that the written description, as understood by one skilled in the art, adequately disclosed a particular structure without which the function would not perform as claimed).

⁶⁸ The parties dispute whether the court is to construe “a three-way valve *input*,” as initially identified by the parties in the joint claim construction briefing, or “a three-way valve.” The court agrees with SSI that construction of “a three-way valve” is appropriate, as explained above.

⁶⁹ SSI’s proposed construction reads in full: “A valve with a first enabling position connecting the compressor to the container and disconnecting the compressor from the additional hose; and a second enabling position connecting the compressor to the additional hose and disconnecting it from the container.”

(connected to the container assembly), and an output to the additional hose (to the tire).⁷⁰ SSI’s proposed construction conflates the structure of the three-way valve with properties belonging to the selector switch. The position of the selector switch directs the positioning of the valve with respect to the output(s), but does not change the structure of the valve itself. A three-way valve will be construed as a valve with one input and two outputs.

6.	TERM	CONSTRUCTION
	<p>“a valve device fitted in a fluid-tight manner to the opening and having an inlet connectable to said compressed-air feed line, and an output for the sealing liquid”</p> <p><i>Claims 2-5</i></p>	<p>One or more valves fitted in a fluid-tight manner to the opening and having an inlet connectable to said compressed-air feed line, and an output for the sealing liquid.</p>

The parties disagree whether “a valve device” means one or more valves or only a single valve. TEK argues that in the field of patents, the indefinite article “a” carries a meaning of “one or more” in open-ended claims.⁷¹ Because the claim for “a valve device” is not specific as to the number of elements and does not indicate a singular limitation, TEK contends that it should be given its plain meaning, or alternatively should be construed to mean “one or more” valve devices.

SSI responds that the article “a” should be construed to mean a single valve based on the intrinsic record, which fails to disclose any reference to or embodiment using more than a single valve.⁷² For example, the claim language refers to a valve device having “an” inlet connectable to said compressed-air feed line and “an” outlet for the sealing liquid. The claim also identifies the valve device by numeral 18, which the patent exclusively and extensively describes as a single

⁷⁰ See ‘110 Patent, Col. 5:10-31.

⁷¹ See Docket No. 30 at 18-19 (citing *KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1357 (Fed. Cir. 2000); *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 977 (Fed. Cir. 1999); *AbTox, Inc. v. Exitron Corp.*, 122 F.3d 1019, 1023 (Fed. Cir. 1997)).

⁷² See *AbTox, Inc.*, 122 F.3d at 1023 (“[T]he article ‘a’ suggests a single chamber.”).

1 valve. In addition, Claims 3-5 refer to “said” valve device which connotes a single device. The
2 specification also discloses embodiments using a single valve device.⁷³

3 The Federal Circuit recently addressed the construction of claim language using the article
4 “a.” In *01 Communique Laboratory, Inc. v. LogMeIn, Inc.*, the court reiterated the circuit’s “well-
5 established precedent” that “[a]s a general rule, the words “a” or “an” in a patent claim carry the
6 meaning of “one or more.””⁷⁴ The court further explained that exceptions to the general rule are
7 few and do not extend to the subsequent use of definite articles “the” or “said” when referring back
8 to the claim term.⁷⁵ Unless the claim language, the specification, or the prosecution history
9 “necessitate a departure from the rule,” the term shall retain its non-singular meaning.⁷⁶ In
10 *LogMeIn, Inc.*, the court found the use of singular referents such as “its location on the Internet
11 being defined by a static IP address” as well as figures in the specification showing the term in
12 question – “the location facility” – to be represented by a single box to be insufficient to overcome
13 the presumption of plural meaning.⁷⁷

14 Here, the patentee similarly has not shown any clear intent to limit the claim to a single
15 valve. The showing of a single valve device in the embodiments does not serve as a sufficient basis
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21 ⁷³ See e.g., ‘110 Patent, Col. 2:64-67 (“Valve device 18 comprises a body 19 having a cylindrical
22 lateral wall 20, of axis A, inserted in fluid tight manner inside neck 16, and a portion 20a of which
23 extends beyond neck 16, into vessel 15, and is closed at one end by an end wall 21”); Col. 3, II. 5-9
24 (“Body 19 of valve device 18 also comprises an inner member 26 defined by a tubular rod 27 of
25 axis A”); Col. 4, II. 63-64 (“Using a two-way valve device 18 closed stably in the absence of
26 pressure along the feed line 4”).

27 ⁷⁴ *01 Communique Laboratory, Inc. v. LogMeIn, Inc.*, -- F.3d. --, 2012 WL 3089367, *4 (Fed. Cir.
28 July 31, 2012) (quoting *TiVo, Inc. v. EchoStar Commc'ns Corp.*, 516 F.3d 1290, 1303
(Fed.Cir.2008)).

⁷⁵ See *id.* (citing *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008)).

⁷⁶ See *id.*

⁷⁷ See *id.*

1 to limit the claim to a single valve device.⁷⁸ “A valve device” will be construed to mean one or
2 more.

7.	TERM	CONSTRUCTION
	<p data-bbox="363 369 565 401">“elastic means”</p> <p data-bbox="363 443 529 474"><i>Claims 4, 14</i></p>	<p data-bbox="915 369 1511 438">“[E]lastic means” is subject to 35 U.S.C. §112 (6).</p> <p data-bbox="915 480 1495 621">The function of “elastic means” is “to keep a control member stably in a closed position in the absence of air pressure and open in response to air pressure.”</p> <p data-bbox="915 663 1458 732">The corresponding structure for the elastic means is a spring and equivalents thereof.</p>

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10 The parties agree that the claim term is a means-plus-function term subject to 35 U.S.C.
11 §112 (6). They agree that the elastic means must keep a control member closed in the absence of
12 pressure. The parties further agree that the corresponding structure is a spring and its equivalents.
13 The parties disagree, however, whether for the “elastic means” to function as intended, it must
14 open in response to air pressure and return to a closed position when the air pressure is removed.

15 TEK contends that the function of “elastic means” is set forth in Claims 4 and 14 and does
16 not need modification. Claims 4 and 14 are identical except for reference to their base claims.

17 Claim 4 states:

4. A kit as claimed in claim 3, characterized in that said valve device (18) *comprises elastic means (31) for keeping said control member (30) stably in said closed position in the absence of pressure to said inlet (27c).*⁷⁹

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20 TEK argues that is consistent with the discussion of valve 18 in the written description, which
21 describes valve 18 in pertinent part as follows:

Device 18 therefore acts as a two-way, two-position, pneumatic valve. In the closed position (Fig. 5), the container is sealed; with pressure along the feed line defined by hose 4, device 18 opens automatically to allow compressed air into container 3, and simultaneous outflow of sealing liquid.⁸⁰

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26 ⁷⁸ See *id.* See also *Altiris, Inc.*, 318 F.3d at 1373.

27 ⁷⁹ ‘110 Patent, Claim 4, Col. 6:11-14 (emphasis added).

28 ⁸⁰ *Id.*, Col. 4:46-50.

1 Using a two-way valve device, 18 closed stably in the absence of pressure along the feed
2 line 4, sealing liquid leakage is prevented, even in abnormal conditions, such as
3 overpressure in container 3 caused by high temperature inside the boot of a car parked in
the sun.⁸¹

4 SSI's proposed construction introduces a limitation not found in the specification, that the elastic
5 means must be able to return the control member to its original position upon removal of the air
6 pressure. According to TEK, the condition whereby the elastic means keeps the control member
7 closed in the absence of air pressure is met at least from the time the tire repair kit is assembled
8 until the time as it is used to repair a tire. The control member may or may not be forced to return
9 to its original position, depending on the overall design of valve 18, but the claims nevertheless do
10 not require it one way or the other.

11 SSI responds that TEK's construction ignores the plain meaning of the term and its own
12 summary of the invention, in which TEK explains that "prior to the introduction of compressed air
13 into valve 18, interior element 30 is held in a closed position by the elastic means, spring 31," but
14 when compressed air is fed into the valve, "spring 31 compresses, and air flows into container 3."⁸²
15 Similarly, the specification describes the action by which pressure along the feed line causes device
16 18 to "open[] automatically to allow compressed air into [the] container, and simultaneous outflow
17 of sealing liquid." SSI thus contends that the specification supports a definition of the "elastic
18 means" that keeps the control member stably closed in the absence of air pressure, "open in the
19 response to air pressure, and able to return to its original position upon removal of the air
20 pressure."
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23 The court agrees with SSI but only in part. That the corresponding function of "elastic
24 means" is to respond both to the absence of air pressure (by maintaining a closed position) and to
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27 ⁸¹ *Id.*, Col. 4: 63-67.

28 ⁸² *See* Docket No. 25 at 30 (TEK's Opening Claim Construction Br.).

1 the presence of air pressure (by opening) is inherent in the meaning of the claim term and is
 2 supported by the written description. The relevant inquiry is whether “elastic” is itself a functional
 3 term or merely describes a characteristic the structure is capable of performing.⁸³ Like the term
 4 “release” in *Baran v. Medical Device Technologies, Inc.*, “elastic” is not an “idle description.”⁸⁴
 5 “Elastic” implies a function capable of changing or deforming in response to pressure. TEK’s
 6 proposed construction ignores this meaning of “elastic;” for example, a non-elastic means also
 7 could “keep a control member stably in a closed position in the absence of air pressure.” The
 8 elastic means, however, functions to keep the control member closed in the absence of air pressure
 9 and, by definition, to open in response to air pressure.⁸⁵ The written description supports this
 10 construction wherein the function of the elastic means is to keep the control member in a closed
 11 position until compressed air is fed to the valve, and to open in response to that air. TEK is correct,
 12 however, that nothing in the claim language or even the intrinsic record requires the elastic means
 13 also be “able to return to its original position upon removal of the air pressure.” This additional
 14 clause suggests a function that the structure may indeed be capable of performing in a working
 15 embodiment or even in a working device, but which is not present in the claim.⁸⁶

8.	TERM	CONSTRUCTION
	“conduits connecting the container to the compressor assembly and to an inflatable article for repair or inflation”	Hoses and associated fittings connecting the container to the compressor assembly and to an inflatable article for repair or inflation.

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22 ⁸³ See *Baran*, 616 F.3d at 1317.

23 ⁸⁴ See *id.*

24 ⁸⁵ Cf. *JVW Enter., Inc. v. Interact Accessories, Inc.*, 424 F.3d 1324, 31 (Fed. Cir. 2005) (holding
 25 that the district court erred in construing the claim term for a “means for lockably receiving a video
 26 game controller in fixed position” to include the function of also “unlocking” or “releasing” the
 27 controller).

28 ⁸⁶ See *id.* (“[A] court errs ‘by importing the functions of a working device into the[] specific
 claims, rather than reading the claims for their meaning independent of any working
 embodiment.’”) (quoting *Rodime PLC v. Seagate Tech., Inc.*, 174 F.3d 1294, 1303 (Fed. Cir.
 1999)).

	<i>Claims 26-31</i>	
9.	“container connecting conduit” <i>Claims 26-31</i>	A hose and associated fittings for connecting the container to the compressor assembly.

A claim format using “means” creates a presumption that 35 U.S.C. §112(6) applies; the absence of “means” in a claim creates a countervailing presumption that §112(6) does not apply.⁸⁷ The presumption that §112(6) does not apply can be rebutted by evidence intrinsic to the patent or by relevant extrinsic evidence.⁸⁸ There are two ways in which the intrinsic evidence can serve to rebut this presumption: either the claim term “fails to ‘recite sufficiently definite structure’ or else recites a ‘function without reciting sufficient structure for performing that function.’”⁸⁹ In determining whether a claim term has sufficient structure to maintain the presumption, the court examines whether the term has an understood meaning in the art.⁹⁰

TEK contends that the claim term sufficiently identifies “conduits” as the structural element and further argues that the phrase is readily understood without further construction. TEK finds support in the prosecution history, wherein original dependent claim 10, noted to be allowable if amended to incorporate the features on which it depended, was rewritten to avoid means-for language and the limitations of 35 U.S.C. §112(6).⁹¹

SSI responds that both claim terms fail to cite sufficient structures and thereby rebut the presumption that 35 U.S.C. §112(6) does not apply. SSI points out that the claim language is for all

⁸⁷ See *Personalized Media Communications, LLC v. International Trade Commission*, 161 F.3d 696, 703 (Fed. Cir. 1999).

⁸⁸ *Id.* at 704.

⁸⁹ *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002) (quoting *Watts v. XL Systems, Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)).

⁹⁰ See *id.*

⁹¹ See Docket No. 26, Ex. C at 10 (“New claim 26 is similar to claim 10 but defines the connections in structural terms rather than ‘means for’ language. It is submitted that it is patentable for the same reasons.”).

1 purposes identical to the functional language of “container connecting means” used in claim 1,
2 except “conduits” is substituted for “connecting means for.”⁹² SSI argues that TEK’s claim term
3 cannot be construed to cover every way or means to perform the function of connecting the
4 container to the compressor assembly and to an inflatable article for repair or inflation – as might
5 be suggested by the broader term “conduit” – in light of the limited disclosure in the specification.
6 SSI also argues that TEK’s reliance on the prosecution history is misplaced. While the inventor
7 sought to avoid the limitations of 35 U.S.C. § 112(6), he represented to the examiner that they were
8 “patentable for the same reasons” as the allowed claims. SSI contends that TEK should not be
9 permitted now to change the claim scope.
10

11 With respect to the form of the claim terms at issue, the court finds that 35 U.S.C. § 112(6)
12 does not apply. Both claims lack “means-for” language and presumptively do not fall within
13 paragraph 6 of § 112.⁹³ “Conduit” is a noun that describes a general class of structures sufficient to
14 avoid construction under 35 U.S.C. § 112(6).⁹⁴ The court finds that “conduit” is not a generic term
15 along the lines of “mechanism,” “means,” “element,” or “device,”⁹⁵ but recites a structure that
16 would be understood by one skilled in the art and in light of the claim language. The prosecution
17 history further establishes that the language in the original claims was rewritten to avoid means-for
18 language. It is nevertheless appropriate to construe these terms, given the broad range of structures
19 that “conduit” may be understood to incorporate and in light of the prosecution history. The terms
20

21 ⁹² Compare ‘110 Patent, Claim 1 (“... and by comprising container connecting means for stably
22 connecting said container to said compressor assembly”) with Claim 26 (“... conduits connecting
23 the container to the compressor assembly) and Claim 26 (“... and additionally comprising a
24 container connecting conduit connecting said container to said compressor assembly”).

25 ⁹³ See *Personalized Media Communications, LLC*, 161 F.3d at 703.

26 ⁹⁴ See *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996) (citing
27 examples of nouns derived from their functions that are used to designate categories of structure
28 including “clamp” and “container” and “filter” and “screwdriver” and “brake” and “lock”).

⁹⁵ See *Mass. Inst. of Tech. and Elec. For Imaging, Inc. v. Abascus Software*, 462 F.3d 1344, 1354
(Fed. Cir. 2006) (differentiating between more generic terms and those reciting sufficient structure,
such as “detector”).

1 will be construed respectively to mean “hoses and associated fittings connecting the container to
2 the compressor assembly and to an inflatable article for repair or inflation” and “a hose and
3 associated fittings for connecting the container to the compressor assembly.”

10.	TERM	CONSTRUCTION
	<p data-bbox="370 436 621 474">“said valve device”</p> <p data-bbox="370 506 602 543"><i>Claims 29 and 30</i></p>	<p data-bbox="917 436 1279 474">Plain and ordinary meaning.</p>

7 Dependent claims 29 and 30 refer to claim 26 “wherein said valve device comprises at least
8 one control member movable, in response to pressurization of said compressed-air feed line...”
9 “[S]aid valve device,” however, lacks an antecedent basis in claim 26. SSI contends that the lack of
10 antecedent basis renders the term indefinite. SSI offers no alternative construction. TEK responds
11 that the lack of an antecedent basis is not dispositive if despite the absence of explicit antecedent
12 basis, ““the scope of the claim would be reasonably ascertainable by those skilled in the art.””⁹⁶

13 TEK contends that even though claim 26 does not recite a valve device, one of ordinary
14 skill in the art can readily determine that “valve device” in claims 29 and 30 is identical to that in
15 dependent claims 13 and 14 (referring back to claim 1). The patentee stated that “New claims 28-
16 30 are dependent on claim 26 and parallel original claims 11, 3 and 4 [sic, 11, 13 and 14] written in
17 structural rather than “means for” language.”⁹⁷ TEK therefore concludes that the claim term “said
18 valve device” is not indeterminate and corresponding claims 29 and 30 are not indefinite, because a
19 person skilled in the art would apply the same meaning to “said valve device” in claims 29 and 30
20 as the term appears in other portions of the claims.⁹⁸

21 SSI responds that the claim is not readily ascertained by those skilled in the art because the
22 surrounding language of the claim and the recited structures do not point to the omitted structure.

23
24 ⁹⁶ See *Energizer Holdings, Inc. v. Intern. Trade Comm’n*, 435 F.3d 1366, 1370-71 (Fed. Cir. 2006)
(quoting from *Bose Corp. v. JBL, Inc.*, 274 F.3d 1354, 1359 (Fed. Cir. 2001)).

25 ⁹⁷ Docket No. 26, Ex. C at 10.

26 ⁹⁸ See *Shoenhaus v. Genesco, Inc.*, 440 F.3d 1354, 1357 (Fed. Cir. 2006) (citing the ““presumption
27 that the same terms appearing in different portions of the claims should be given the same meaning
28 unless it is clear from the specification and prosecution history that the terms have different
meanings at different portions of the claims””) (quoting *Fin Control Sys. Pty., Ltd. v. OAM, Inc.*,
265 F.3d 1311, 1318 (Fed. Cir. 2001)).

1 SSI argues that claims 29 and 30 refer only to a different valve, i.e. a three-way valve, that
2 performs a wholly different function, and not to any element in which “said valve” may be viewed
3 as an inherent component.⁹⁹ SSI also argues that the prosecution history is insufficient to clarify the
4 antecedent basis, because the patentee identified claims 3 and 4 as parallel to claims 29 and 30.
5 Claims 3 and 4 depend from claim 2, so that the court would have to re-write claim 26 (or claims
6 29 and 30) to add claim 2, which in relevant part reads: “connecting means comprise ... and a
7 valve device (18) fitted in a fluid-tight manner to the opening (17) and having an inlet (27c)
8 connectable to said compressed-air feed line (4), and an outlet (29a) for the sealing liquid.” In
9 addition, claim 2 is written in a means-plus-function format that would further convolute any re-
10 writing of claim 26.

11 Claims 3 and 4, identified in the prosecution history, provide an antecedent basis for “said
12 valve device” by referring back to claim 2. A person skilled in the art, reading the claim language,
13 the specification, and looking to the explanation in the prosecution history that claims 28-30
14 parallel original claims 11, 3 and 4, would understand the basis for “said valve device” as “a valve
15 device (18) fitted in a fluid-tight manner to the opening (17) and having an inlet (27c) connectable
16 to said compressed-air feed line (4), and an outlet (29a) for the sealing liquid.”¹⁰⁰ The term is
17 therefore not indefinite and will be given its plain and ordinary meaning, consistent with the
18 construction of “a valve device” set forth above with respect to claim term No. 6.

19 **IT IS SO ORDERED.**

20 Dated: August 29, 2012

21 
22 PAUL S. GREWAL
23 United States Magistrate Judge

24
25 ⁹⁹ Cf. *Energizer Holdings, Inc.*, 435 F.3d at 1370-71 (Fed. Cir. 2006) (finding sufficient antecedent
26 basis for “said zinc anode” in claim reciting “and an anode gel comprised of zinc as the active
27 anode component, wherein the cell contains less than 50 parts of mercury per million parts by
28 weight of the cell and said zinc anode has a gel expansion”); *Bose Corp.*, 274 F.3d at 1359 (finding
sufficient antecedent basis for “an eclipse having a major diameter” in the earlier recitation of “an
eclipse” where “an eclipse” is an inherent component of the later-recited term).

¹⁰⁰ See ‘110 Patent, Claim 2, Col. 5:66-6:2.