

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HILTI AKTIENGESELLSCHAFT

Petitioner,

v.

SPECIFIED TECHNOLOGIES INC.,

Patent Owner.

IPR2024-00192

U.S. Patent No. 9,157,232

PETITION FOR *INTER PARTES* REVIEW

TABLE OF CONTENTS

I.	REQUIREMENTS FOR IPR.....	1
A.	Certification of Grounds for Standing.....	1
B.	Overview of Challenge and Relief Requested.....	1
C.	Claim Construction.....	2
D.	Level of Ordinary Skill in the Art	3
II.	THE '232 PATENT	4
A.	Brief Description	4
B.	Prosecution History	7
III.	OVERVIEW OF THE CITED PRIOR ART.....	9
A.	Overview of Pilz I.....	9
B.	Overview of Morgan.....	16
C.	Overview of Pilz II	19
IV.	THE CHALLENGED CLAIMS ARE UNPATENTABLE.....	23
A.	[GROUND 1A] – Claims 6, 7, 8, 9, 10, 11, and 12 are rendered obvious by Pilz I in view of Morgan and Pilz II	23
1.	Combination of Pilz I in view of Morgan and Pilz II.....	23
2.	Obviousness based on Pilz I + Morgan + Pilz II.....	30
a.	[6pre]	30
b.	[6a] [6b].....	34
c.	[6a1] [6b1].....	37

d. [6a2] [6b2]	38
e. [6c] [6d]	40
f. [6e]	41
g. [7]	46
h. [8]	47
i. [9]	47
j. [10]	47
k. [11]	48
l. [12]	48
B. [GROUND 1B] – Claims 6, 7, 8, 9, 10, 11, and 12 are rendered obvious by Pilz I in view of Morgan and Pilz II	48
1. Combination of Pilz I in view of Morgan and Pilz II	48
a. [6pre]	52
b. [6a] [6b]	56
c. [6a1] [6b1]	59
d. [6a2] [6b2]	59
e. [6c] [6d]	61
f. [6e]	62
g. [7]	66
h. [8]	67
i. [9]	68

j. [10]	68
k. [11]	68
l. [12]	69
C. Secondary Considerations of Non-Obviousness	70
D. PTAB Discretion Should Not Preclude Institution	70
1. Discretionary Denial under 35 U.S.C. § 325(d) is Not Warranted	70
a. The Examiner materially erred in overlooking Pilz I’s disclosure of two separate “connecting strap” embodiments.	71
b. To the extent the Examiner limited the “connecting strap” limitation to its preferred embodiment, the Examiner materially erred.	75
2. Denial under the <i>Fintiv</i> Factors is not warranted.	77
V. CONCLUSION AND MANDATORY NOTICES	80
A. Real Party-in-Interest.....	80
B. Related Matters.....	80
C. Lead and Back-Up Counsel.....	80
D. Service Information	81
E. Fees	81

TABLE OF EXHIBITS

1001	U.S. Patent No. 9,157,232 to Stahl, Jr.
1002	File History of U.S. Patent No. 9,157,232
1003	Declaration of Milosh Puchovsky
1004	U.S. Patent Publication No. US2009/0049781 to Pilz et al. (“Pilz I”)
1005	U.S. Patent No. 6,783,345 to Morgan et al. (“Morgan”)
1006	U.S. Patent No. 8,595,999 to Pilz et al. (“Pilz II”)
1007	U.S. Patent No. 8,826,599 to Stahl Jr.
1008	U.S. Patent No. 7,950,198 to Pilz et al.
1009	STI’s Opening Claim Construction Brief
1010	STI’s Patent Marking Page
1011	STI’s TTG Product Data Sheet
1012	Declaration of Michael A. Dorfman
1013	STI’s Supplemental Infringement Contentions
1014	STI’s Objections and Responses to Hilti’s Second Set of Interrogatories
1015	<i>Sotera</i> Stipulation
1016	STI’s TTG Installation Instructions

LISTING OF CHALLENGED CLAIMS

Claim 6	
[6pre]	An adjustable head-of-wall insulating construction for sealing a head-of-wall area between a ceiling thereabove and a wall configuration therebelow which is wider than standard and which includes a ceiling track having a main track section which extends generally horizontally and a first track side section extending downwardly therefrom and a second side track section extend downwardly therefrom at a position spatially disposed from the first track section wherein the main track section includes a first track side section defining a first lowermost edge thereof and a second side track section defining a second lowermost edge thereof, said insulating gasket construction comprising:
[6a]	A. a first L-shaped gasket section including:
[6a1]	(1) a first gasket upper panel of insulating material positioned immediately above the main track section of the ceiling track and extending generally horizontally thereover; and
[6a2]	(2) a first gasket side panel of insulating material attached with respect to said first gasket upper panel and extending generally downwardly therefrom across the first track side section for insulating thereover, said first gasket side panel extending downwardly from said first gasket upper panel to define the generally L-shaped configuration of the first L-shaped gasket section, said first gasket upper panel and said first gasket side panel together defining a track receiving recess facing downwardly therebelow;

[6b]	B. a second L-shaped gasket section including:
[6b1]	(1) a second gasket upper panel of insulating material positioned immediately above the main track section of the ceiling track and extending generally horizontally thereover at a position spatially disposed from said first gasket upper panel; and
[6b2]	(2) a second gasket side panel of insulating material attached with respect to said second gasket upper panel and extending generally downwardly therefrom across the second track side section for insulating thereover, said second gasket side panel extending downwardly from said second gasket upper panel to define the generally L-shaped configuration of the second L-shaped gasket section, said second gasket upper panel and said second gasket side panel and said first gasket upper panel and said first gasket side panel together defining a track receiving recess facing downward therebelow for receiving a ceiling track positionable therewithin for facilitating insulating therearound;
[6c]	C. a first panel adhesive means mounted on said first gasket upper panel at a position between said first gasket upper panel of said first L-shaped gasket section and the main track section of the ceiling track to facilitate engagement therebetween;
[6d]	D. a second panel adhesive means mounted on said second gasket upper panel at a position between said second gasket upper panel of said second L-shaped gasket section and the main track section of the ceiling track to facilitate engagement therebetween; and
[6e]	E. at least one connecting strap positioned above the main track section of the ceiling track and attached to said first L-shaped gasket

	section and to said second L-shaped gasket section to limit spatial separation therebetween.
Claim 7	
[7]	An adjustable head-of-wall insulating construction for sealing a head-of-wall area as defined in claim 6 wherein said at least one connecting strap is attached with respect to said first gasket upper panel of said first L-shaped gasket section and is also attached with respect to said second gasket upper panel of said second L-shaped gasket section.
Claim 8	
[8]	An adjustable head-of-wall insulating construction for sealing a head-of-wall area as defined in claim 6 wherein said first gasket side panel is spatially disposed from the first track side section to be moveable with respect thereto responsive to relative movement between the wall configuration and the upper building structure thereabove and wherein said second gasket side panel is spatially disposed from the second track side section to be moveable with respect thereto responsive to relative movement between the wall configuration and the upper building structure thereabove.
Claim 9	
[9]	An adjustable head-of-wall insulating construction for sealing a head-of-wall area as defined in claim 6 wherein said first gasket upper panel and said first gasket side panel are made from an insulating material which includes a firestopping insulating component therewithin.
Claim 10	
[10]	An adjustable head-of-wall insulating construction for sealing a head-

	of-wall area as defined in claim 9 wherein the firestopping insulating component is intumescent.
Claim 11	
[11]	An adjustable head-of-wall insulating construction for sealing a head-of-wall area as defined in claim 6 wherein said first gasket upper panel and said first gasket side panel are made from an insulating material which includes an acoustical insulating component therewithin.
Claim 12	
[12]	An adjustable head-of-wall insulating construction for sealing a head-of-wall area as defined in claim 6 wherein said first gasket upper panel is integrally formed with respect to said first gasket side panel and wherein said second gasket upper panel is integrally formed with respect to said second gasket side panel.

Hilti Aktiengesellschaft (“Hilti” or “Petitioner”) petitions for *inter partes* review (“IPR”) of claims 6-12 (“the Challenged Claims”) of U.S. Patent No. 9,157,232 (“the ’232 patent”, Ex. 1001). Petitioner respectfully submits that this Petition demonstrates a reasonable likelihood of prevailing with respect to at least one Challenged Claim, and respectfully requests institution of IPR and cancellation of all Challenged Claims as unpatentable as the precise relief requested. *See* 37 C.F.R. §42.22(a)(1).

I. REQUIREMENTS FOR IPR

A. Certification of Grounds for Standing

Petitioner certifies pursuant to Rule 42.104(a) that the ’232 patent is available for IPR and that Petitioner is not barred or estopped from requesting IPR challenging the patent claims on the grounds identified in this Petition. The present Petition is being filed within one year of service of a counterclaim asserting the ’232 patent against Petitioner in *Hilti Aktiengesellschaft v. Specified Technologies Inc.*, No. 1:22-cv-01248-CJB (D. Del.).

B. Overview of Challenge and Relief Requested

Hilti requests IPR of the Challenged Claims on the below grounds. Additional explanation and support for each ground is set forth in the declaration of Milosh Puchovsky (Ex. 1003), referenced throughout this Petition.

Ground	Claim(s)	Obvious under 35 U.S.C. § 103 based on
1A	6-12	Pilz I in view of Morgan and Pilz II
1B	6-12	Pilz I in view of Morgan and Pilz II

The '232 patent claims priority to U.S. Provisional Patent App. No. 61/956,554, which was filed June 11, 2013. Ex. 1001, Cover Page. For purposes of this IPR, Petitioner treats June 11, 2013, as the earliest effective filing date. Each of the prior art references applied in Grounds 1A-1B qualify as prior art to the '232 patent under 35 U.S.C. § 102(a)(1) or § 102(a)(2) (as shown in the table below).

Reference	Patent/Pub. No.	Filing Date	Publication/Issue Date	Prior Art Under
Pilz I (Ex. 1004)	U.S. 2009/0049781	August 21, 2008	February 26, 2009	35 U.S.C. § 102(a)(1)
Pilz II (Ex. 1006)	U.S. 8,595,999	July 27, 2012	December 3, 2013	35 U.S.C. § 102(a)(2)
Morgan (Ex. 1005)	U.S. 6,783,345	May 20, 2002	August 31, 2004	35 U.S.C. § 102(a)(1)

C. Claim Construction

The '232 patent is currently the subject of a district court litigation: *Hilti Aktiengesellschaft v. Specified Technologies Inc.*, No. 1:22-cv-01248-CJB (D. Del.) (“the District Court Litigation”). In the District Court Litigation, the parties dispute

the meaning of several terms.¹ Herein, Petitioner applies the plain and ordinary meaning of the claim terms.

Petitioner reserves the right to respond to any further constructions offered by Patent Owner or adopted by the Board. Petitioner does not concede that each challenged claim satisfies all statutory requirements (e.g., of 35 U.S.C. § 112), nor is Petitioner waiving any arguments concerning claim scope or grounds for patentability that can only be raised in a different forum.

D. Level of Ordinary Skill in the Art

A person of ordinary skill in the art (“POSITA”) relating to the subject matter of the ’232 patent as of June 11, 2013, would have had at least a bachelor’s degree in mechanical engineering, civil engineering, fire protection engineering, applied science or a related field, with three to five years’ experience in building construction, fire safety, or the firestopping field. Ex. 1003, ¶9. Additional graduate education could substitute for professional experience, or significant experience in

¹ Where appropriate, Petitioner addresses the parties’ claim construction disputes relating to the plain meaning of a given term in the context of a specific claim element. Under either party’s understanding of the plain meaning of the subject terms, the Petition demonstrates a reasonable likelihood that one or more of the Challenged Claims are unpatentable.

the field could substitute for formal education. *Id.* Professor Puchovsky qualified as a POSITA as of June 11, 2013. Ex. 1003, ¶10.

II. THE '232 PATENT

A. Brief Description

The '232 patent generally “discloses a unique configuration for an insulating gasket [] usable positioned adjacent to the head-of-wall joint [] of a conventional building construction for insulating sealing thereof, primarily for firestopping but can include acoustically insulating characteristics also.” Ex. 1001 at 6:11-15; *see also* Ex. 1003, ¶25. The insulating gasket “effectively [forms a] seal between conventionally designed metal track sections and the immediately adjacent roof or ceiling area for firestopping and/or acoustic insulating thereof[.]” Ex. 1001 at 5:5-8; Ex. 1003, ¶25.

The insulating gasket of the '232 patent is “preferably L-shaped and when used in pairs on a given wall 11 will define an overall downwardly facing C-shaped construction similar to the overall shape of the ceiling track or runner 18.” Ex. 1001 at 7:10-14; Ex. 1003, ¶26. The insulating gasket includes the “first L-shaped gasket section 70 and the second L-shaped gasket section 76.” Ex. 1001 at 7:22-23; Ex. 1003, ¶26. These sections are highlighted in red below while the ceiling track is highlighted in blue.



Ex. 1001, Fig. 5 (annotated); Ex. 1003, ¶26.

As discussed in the '232 patent and shown above, a ceiling track takes the shape of an upside down “C.”² Ex. 1003, ¶27; *see also* Ex. 1001 at 7:17-21 (“In this manner these two similarly shaped L-shaped members will co-operate together to define a downwardly facing C-shaped configuration for the insulating material similar to the shape and orientation of ceiling track 18.”). Quite commonsensically, the L-shaped gasket sections are shaped to mate with the upside-down C-shaped ceiling track. Ex. 1003, ¶27.

² Those in the field refer to these structures as both “C-shaped” and “U-shaped.”

Ex. 1003, ¶26, n. 1.

The '232 patent discusses its first “L-shaped gasket section” with reference to a “first gasket upper panel 72 extending over one side of the main track section 19 of ceiling track 18” and “a first gasket side panel 71 attached to the first gasket upper panel 72 and extending outwardly over the first track side section 20 of ceiling track 18.” Ex. 1001 at 7:24-30; Ex. 1003, ¶27. The '232 patent includes corresponding disclosure concerning a second “L-shaped gasket section.” Ex. 1001 at 7:31-38; Ex. 1003, ¶27.

The L-shaped gasket sections of the '232 patent are positioned on top of a ceiling track with one or more connecting straps 82 (not shown in Fig. 5 above) attached to the L-shaped gasket. Ex. 1001 at 7:39-52; Ex. 1003, ¶28. The specification teaches that each of the upper panels of the L-shaped gasket sections are attached to the ceiling track by an adhesive means. Ex. 1001 at 8:52-63; Ex. 1003, ¶28.

Fig. 3 discloses an embodiment of the connecting straps 82 (colored green), which connect the L-shaped gasket sections when they are positioned on the ceiling track.

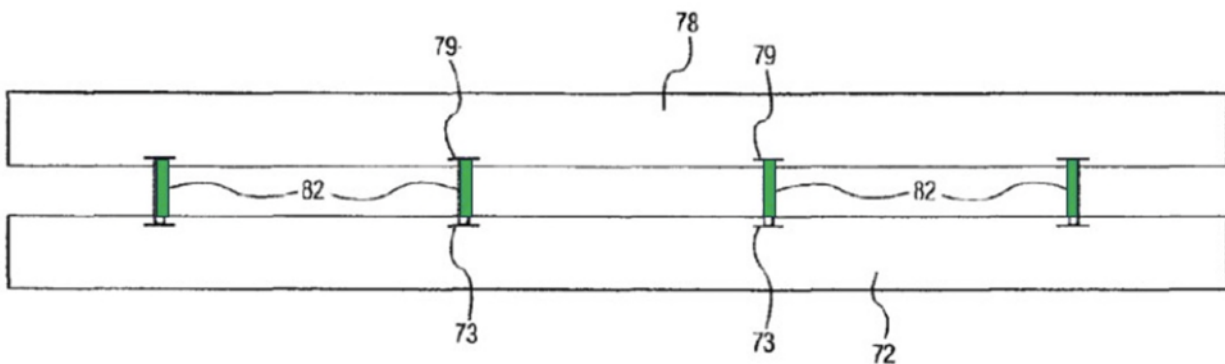


FIG. 3

Ex. 1001, Fig. 3 (annotated); Ex. 1003, ¶28.

The specification explains that the gasket preferably includes an intumescent component. See, e.g., Ex. 1001 at 9:12-25; Ex. 1003, ¶29. An intumescent component foams in response to fire to limit the passage of smoke or fire. Ex. 1003, ¶ 29. In the event of fire, the intumescent gasket sections would foam and delay the passage of fire through the openings sealed by the insulating gasket. *Id.*

B. Prosecution History

Patent Owner filed the non-provisional application that matured into the '232 patent on April 14, 2014. Ex. 1002 at 325; Ex. 1003, ¶30. On October 15, 2014, the Office mailed a non-final office action (the “NFOA”). Ex. 1002 at 51-57. The NFOA rejected all application claims on the grounds of nonstatutory double patenting in view of U.S. Patent No. 8,826,599 (Ex. 1007). *Id.* at 54. The Examiner found: “Although the claims at issue are not identical, they are not patentably distinct

from each other. [The] '599 [patent] teach[es] a C shaped gasket and the instant invention teach[es] two L shaped gaskets. Two L shapes are an obvious variation on a single C shape.” *Id.* at 54; Ex. 1003, ¶30.

The NFOA also rejected certain claims, including application claim 7, as obvious over U.S. Patent No. 7,950,198 to Pilz (the “’198 patent”) (Ex. 1008). Ex. 1003, ¶31. Application claim 7 recites the identical elements of issued claim 6, except that it does not include the “connecting strap” claimed in element [6e]. *Id.* at 298-301; Ex. 1003, ¶31-32.

The Examiner found the ’198 patent to disclose each feature of application claim 7 (which, as later amended, issued as claim 6). *Id.* at 55. As to the claimed adhesive, the Examiner found that “Pilz discloses the use of adhesives with the gasket but not a particular configuration” and further that “it would have been an obvious design choice to use the adhesion configuration such as specified in these claims.” Ex. 1002 at 55; Ex. 1003, ¶33.

The Examiner objected to application claim 8 as being dependent upon a rejected base claim, but found that the claim would be allowable if rewritten in independent form including all of the limitations of claim 7 from which it depended. *Id.* at 56; Ex. 1003, ¶34. Application claim 8 recited the same “connecting strap” as claimed in issued claim 6: “at least one connecting strap positioned above the main track section of the ceiling track and attached to said first L-shaped gasket section

and to said second L-shaped gasket section to limit spatial separation therebetween.”

Id. at 301; Ex. 1003, ¶34.

In response to the NFOA, Patent Owner traversed the nonstatutory double patenting rejection with a terminal disclaimer. *Id.* at 29; Ex. 1003, ¶36. Patent Owner also cancelled application claim 8 and incorporated it into application claim 7. *Id.* at 29; Ex. 1003, ¶36. Patent Owner did not dispute the Examiner’s finding that all limitations of application claim 7 were disclosed in the ’198 patent. *Id.* at 29; Ex. 1003, ¶36. Thus, the Examiner’s allowance of application claim 7 (now issued claim 6) turned *entirely* on the Examiner’s finding that the art of record did not include “at least one connecting strap” as claimed in application claim 8. Ex. 1003, ¶35.

III. OVERVIEW OF THE CITED PRIOR ART

A. Overview of Pilz I

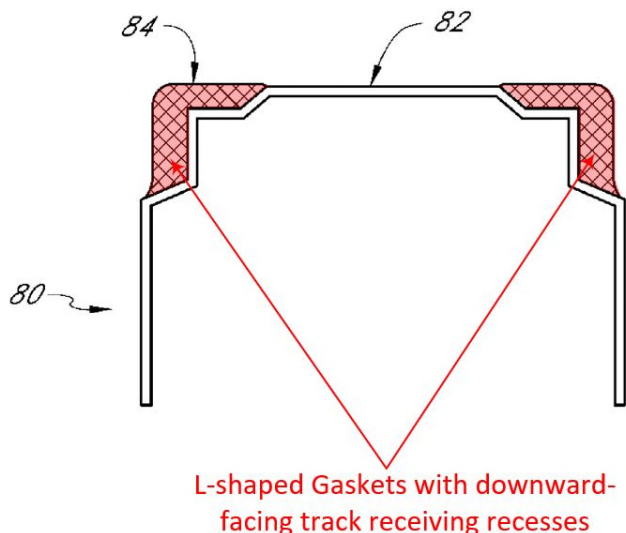
Pilz I is a continuation-in-part of parent U.S. Application No. 12/013,361 of which the ’198 patent is a divisional. Ex. 1004 (“Related U.S. Application Data – Continuation-in-part of application no. 12/013,361, filed on Jan. 11, 2008”); Ex. 1008 (“Related U.S. Application Data – Division of application no. 12/013,361, filed on Jan. 11, 2008, now Pat. No. 7,617,643”); Ex. 1003, ¶37.

Pilz I discloses “fire-rated wall construction components and wall systems” with embodiments that “can include tracks for holding studs which incorporate

various geometries capable of receiving fire-retardant material” and “flat straps for use between tracks and fluted wall components.” Ex. 1004, Abstract; Ex. 1003, ¶38.

Pilz I also discloses first and second L-shaped gaskets 84 positioned above a main track section of a ceiling track 82 and extending over respective track side sections (colored red below). Ex. 1004, ¶0055; Ex. 1003, ¶39. Pilz I discloses that intumescent material 50 (of the embodiment disclosed in Fig. 6B) may include “adhesive backing, which permits the intumescent material 50 to be secured to . . . wall component 56.” *Id.*, ¶0049; Ex. 1003, ¶39. As shown below, the L-shaped gasket sections form downward facing track receiving recesses. Ex. 1003, ¶39.

Pilz I FIG. 9 Excerpt

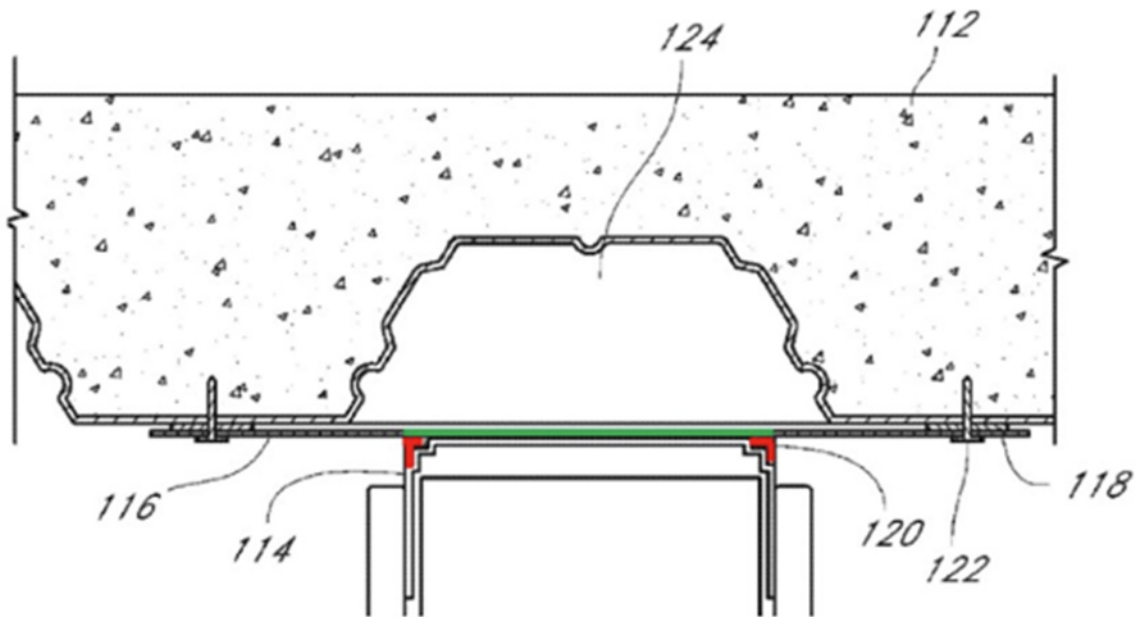


Ex. 1004, Fig. 9 (annotated).

The same figure and accompanying description, appearing in the Pilz '198 patent, were used in the NFOA to reject a claim identical to challenged claim 6 in all respects other than element E (which was at that time in a dependent claim), as well as each of the dependencies found in the dependent Challenged Claims other than application claim 8 (reciting a “connecting strap”). Ex. 1002 at 55; Ex. 1003, ¶40.

As a continuation-in-part, Pilz I discloses *materially more* than the '198 patent. For example, Pilz I added FIG. 10A, which shows a ceiling track 114 with two L-shaped gaskets sections 120 (colored red) and a “*strap* 116”³ (colored green, which is called both “flat strap 116” and “fire strap 116” in Pilz I) positioned above the main track section of the ceiling track and connected to the L-shaped gasket sections (colored red). Ex. 1004, ¶¶0056-0058; Ex. 1003, ¶41.

³ Emphasis herein is added unless otherwise indicated.



Ex. 1004, FIG. 10A (annotated).

Pilz I's disclosure of strap 116 is *not* included in the '198 patent, which the Examiner found to lack the claimed "connecting strap." Ex. 1003, ¶41.

Pilz I explains that L-shaped gasket sections 120 (colored red) can be adhered to ceiling track 114⁴ (Ex. 1004, ¶¶0057-0058) such that when the ceiling track 114 "is attached to, pressed, and/or placed against the fire strap 116, the gasket or gaskets 120 can form a sound and/or air seal, inhibiting sound and/or air from moving from

⁴ Pilz I explains that "[i]n at least some embodiments the second wall component 114 can comprise a track, or header track, such as the one illustrated in FIG. 10A, for retaining wall studs." Ex. 1004, ¶0057; Ex. 1003, ¶42, n. 5.

one side of the” ceiling track to the other. Ex. 1004, ¶0058; Ex. 1003, ¶42.

As such, the fire strap (also referred to as a flat strap) is attached to the two L-shaped gaskets 120, which are adhered to the ceiling track. Ex. 1003, ¶42. The result is an insulating gasket comprising two L-shaped gasket sections adhered to the ceiling track and connected by a connecting strap that is positioned above the ceiling track. *Id.*, ¶43.⁵ Pilz I also discloses that “[t]he gasket 120 can itself comprise a strip of fire-retardant material, including but not limited to intumescent material.” Ex. 1004, ¶0058; Ex. 1003, ¶43.

Pilz I discloses another embodiment in which a C-shaped gasket is formed of intumescent material to mate with the U-shape of the ceiling track. Ex. 1003, ¶44. Pilz I discloses this with reference to Fig. 8. *Id.* Pilz I explains that Fig. 8 discloses ceiling track 72 (colored blue) for holding a wall stud 20 beneath a ceiling 18. Ex. 1004, ¶0054; Ex. 1003, ¶44. Intumescent material 74 (colored red) is attached to the track 72 as shown in the below figure. Ex. 1004, ¶0054; Ex. 1003, ¶44.

⁵ Fig. 10B shows a zoomed in view of the L-shaped gasket section 120. Notably, the vertical portion of L-shaped gasket section 120 is not flush against the ridged portion of the ceiling track, which suggests that the vertical portion need not be adhered to the side track section. Ex. 1003, ¶42, n. 6

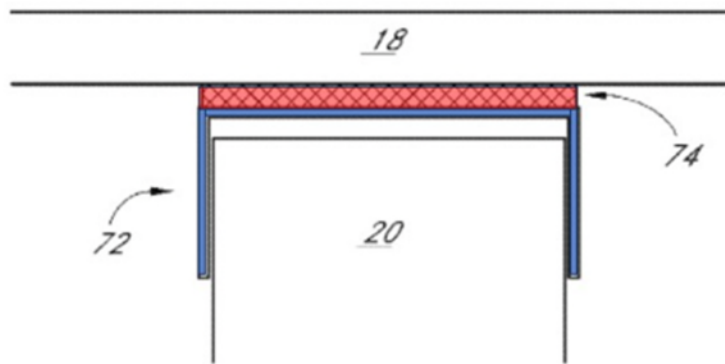


FIG. 8

Ex. 1004, Fig. 8 (annotated)

Pilz I further explains that “in some embodiments the intumescent material may extend down one or both sides of the wall component 72.” Ex. 1004, ¶0054. The modified figure below illustrates the structure of this embodiment (which is described but not depicted in Pilz I) in which a single piece of intumescent material extends across the horizontal track portion and down the side track sections to form a C-shaped gasket. Ex. 1003, ¶45.

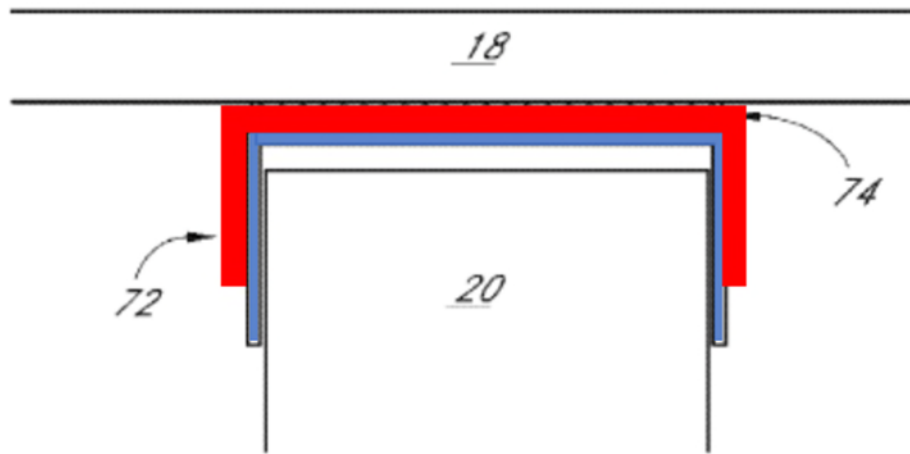


FIG. 8

Ex. 1004, Fig. 8 (annotated).

This C-shaped construction of Pilz I includes two L-shaped gasket sections and a connecting strap to limit the spatial separation between the two, as shown in the annotated figure below. Ex. 1003, ¶46.

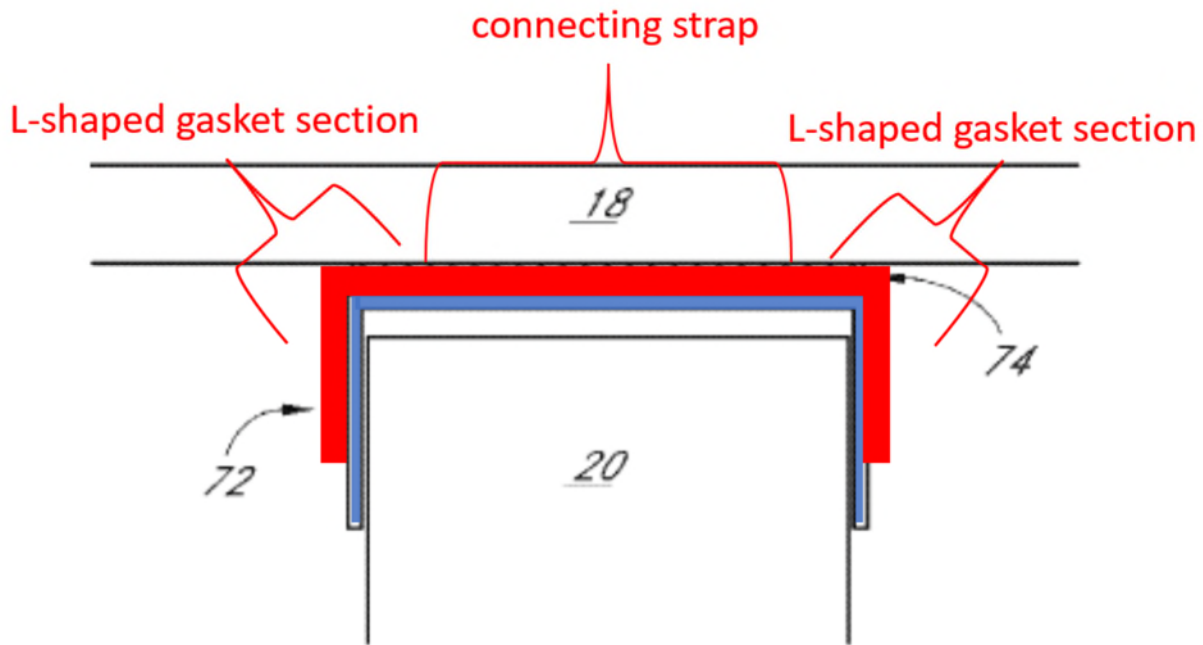


FIG. 8

Ex. 1004, Fig. 8 (annotated).

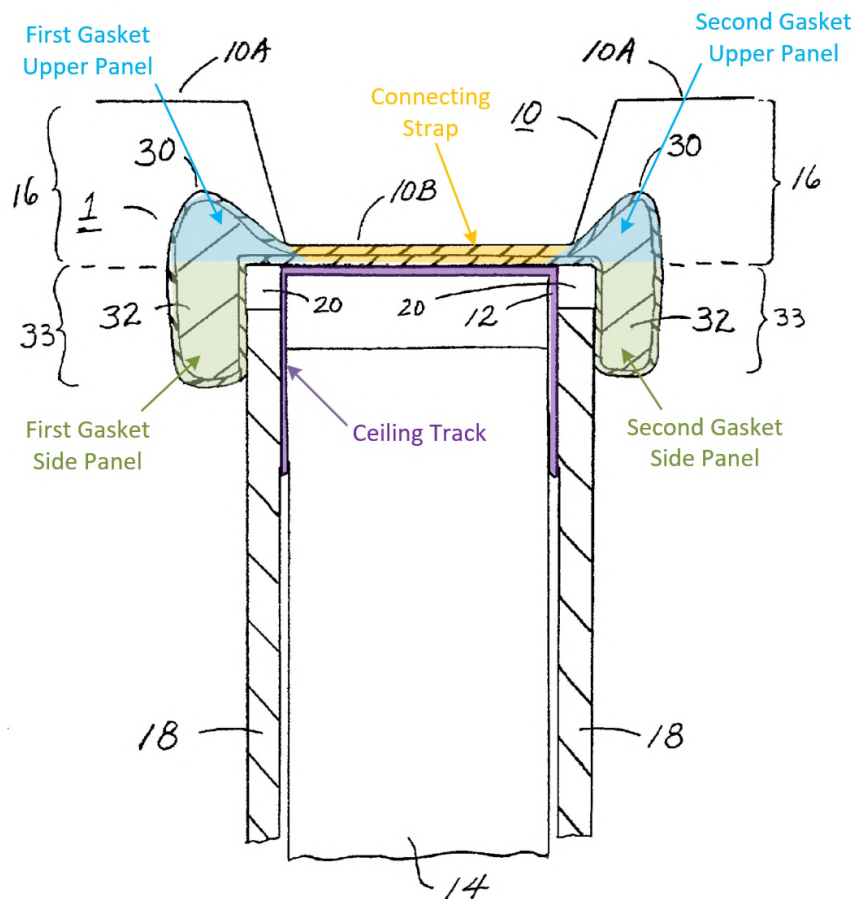
This single piece of intumescent material embodiment of Fig. 8 is consistent with the embodiment of Figs. 6A and 6B, which include “an intumescent material 50, [which] can be a single piece of material.” Ex. 1004 at ¶¶0048-0049; Ex. 1003, ¶46, n. 7.

B. Overview of Morgan

Morgan discloses “methods, systems, and devices for installing barriers in openings or gaps in or between structures such as walls, ceilings, and floors [using a] barrier molding bag [] positioned in the hole or gap, and [filled with] a flowable

firestop material.” Ex. 1005, Abstract; Ex. 1003, ¶47. To that end, Morgan explains that “[o]ne objective of the present invention is to provide a more convenient and cost-effective method for installing a thermal barrier in intricately shaped openings and joint gaps such as are found in ‘head-of-wall’ joints, ‘perimeter’ joints, and other variously sized and/or intricately shaped gaps or openings such as penetrations through walls.” Ex. 1005 at 2:5-10; Ex. 1003, ¶47.

Morgan discloses its insulating bag with reference to Fig. 4, which is annotated below.



Ex. 1005, Fig. 4 (annotated); Ex. 1003, ¶48.

Morgan describes Fig. 4 as follows:

As shown in FIG. 4, another exemplary thermal barrier 1 of the invention can be made when the fluted metal ceiling 10 is oriented in the same direction as the metal stud wall 14. In this case, a barrier molding bag 30 is positioned between the horizontal track member 12 and ceiling surface 10B, with longitudinal edges of the bag (33) extending outwards on either side of the joint between the wall and ceiling, before the horizontal track member 12 is attached to (or otherwise disposed against) the ceiling surface 10B....a flowable firestop material 32 is introduced into the molding bag 30, such that a thermal firestop barrier is molded along the joint over the corner gaps 20 at the top of the gypsum boards 18.

Ex. 1005 at 5:5-25; Ex 1003, ¶49.

Morgan explains that “molding bags 30 of the invention” can be adjusted to fit different sizes joints:

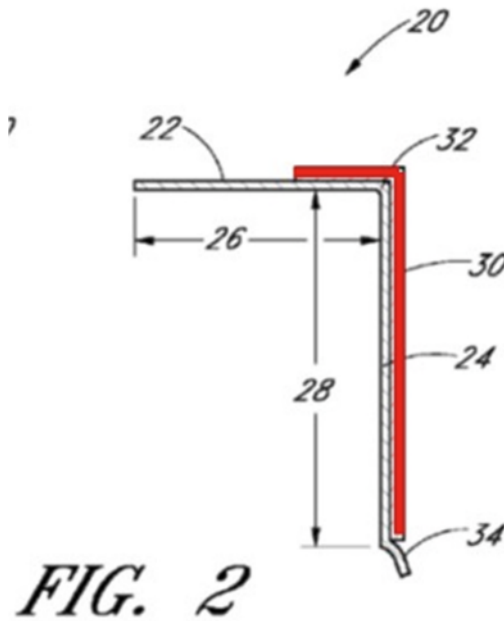
Exemplary molding bags 30 of the invention, as previously mentioned, should be sufficiently flexible to provide for convenience in positioning the bag, when empty, into opening or gaps of various sizes and shapes, and to provide for expandability in size, upon introduction of the hydratable cementitious material, whereby the molding bag conforms to at least a portion, or the entirety, of the joint gap or opening.

Ex. 1005 at 10:40-57; Ex. 1003, ¶50.

Morgan discloses that its “molding bag 30 can be attached, using adhesives or fasteners, to the horizontal track 12 as a one-piece assembly.” Ex. 1005 at 11:46-48; Ex. 1003, ¶51. Morgan further explains: “For example, the bottom side 30B of the bag 30 shown in FIG. 5 can be supplied with a two-sided tape, covered by a releasable sheet, to permit the bag device 30 to be adhered to the horizontal track 12 before it is fastened to or disposed against the ceiling, as illustrated in FIGS. 3 and 4.” Ex. 1005 at 14:14-19; Ex. 1003, ¶51. Accordingly, Morgan discloses that it was known to place an adhesive on the portion of an L-shaped gasket section that is directly above the horizontal section of a ceiling track. Ex. 1003, ¶51.

C. Overview of Pilz II

Pilz II is another reference by the prolific inventor Don A. Pilz, which is part of a different patent family as compared to Pilz I. Ex. 1003, ¶52. Pilz II discloses fire-rated angles to which L-shaped gasket sections (colored red) are attached. *Id.* This can be seen with reference to annotated Fig. 2 below. *Id.*



Ex. 1006, Fig. 2 (annotated).

The angle profiles 20 are included within a head of wall assembly as shown in Fig. 12 below.

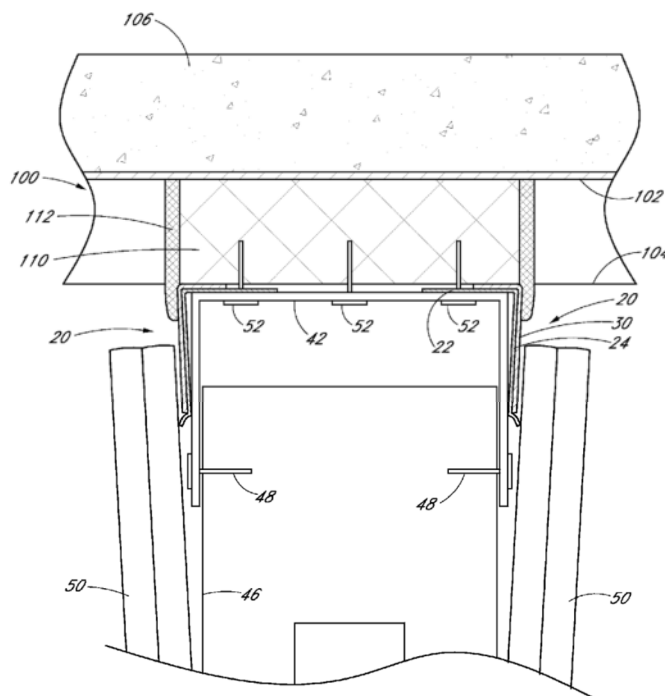


FIG. 12

Ex. 1006, Fig. 12; Ex. 1003, ¶53.

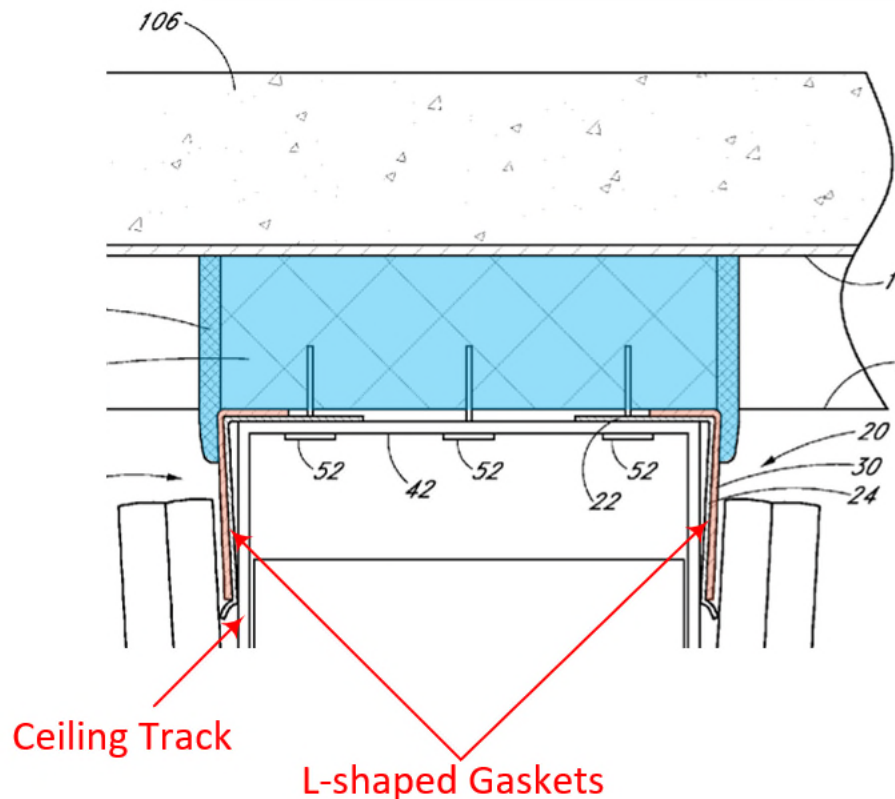
Pilz II discloses that it was known to construct head-of-wall sealing systems used in connection with “wider than standard” wall assemblies:

The dimensions of the width of the horizontal leg 22 preferably are selected such that two angles 20 can be employed in a head-of-wall assembly (illustrated in FIG. 3) with one angle 20 on each side of the wall. Preferably, the width of the horizontal leg 22 is selected such that the legs 22 of the two angles 20 do not overlap one another when assembled into the head-of-wall assembly. Accordingly, if the angle 20 is configured for use with a wall assembly that is wider than standard width, the width of the horizontal leg 22 can be increased to, for

example, about 1 ½ inches to about 3 inches, or more.

Ex. 1006 at 6:63-7:6; *see also id.* at 23:31-41; Ex. 1003, ¶54.

Pilz II discloses that a fluted pan deck 100 includes voids 104 where the track 42 does not contact the deck 106, such as shown in the FIG. 12 cross-section. Ex. 1006 at 12:33-55; Ex. 1003, ¶55. In such regions, Pilz II discloses a connecting flexible structure positioned above the main track section 42. Ex. 1006 at 12:33-55; Ex. 1003, ¶55. Specifically, the voids are filled with a combination of compressed mineral wool 110 and an elastomeric fire spray 112 applied over the mineral wool. Ex. 1006 at 12:33-55; Ex. 1003, ¶55. The fire spray laps the intumescent angles 20, thus attaching the angles, compressed mineral wool, and elastomeric coating into an assembly that allows wallboard 50 “to cycle unencumbered against intumescent angle 20 without stress cracks to the fire rated deflection joint.” Ex. 1006 at 13:3-8; Ex. 1003, ¶55. Pilz II also discloses the use of optional fasteners 52 driven through each of the left and right gasket upper panels and the mineral wool. Ex. 1006, FIG. 12; Ex. 1003, ¶55. A POSITA would understand the combination of the mineral wool and elastomeric spray to form a type of strap (colored blue) that connects the two L-shaped angle profiles with L-shaped intumescent gasket sections adhered to the profiles as shown in the figure below. Ex. 1003, ¶55.



Ex. 1006, Fig. 12 (annotated).

IV. THE CHALLENGED CLAIMS ARE UNPATENTABLE

A. [GROUND 1A] – Claims 6, 7, 8, 9, 10, 11, and 12 are rendered obvious by Pilz I in view of Morgan and Pilz II

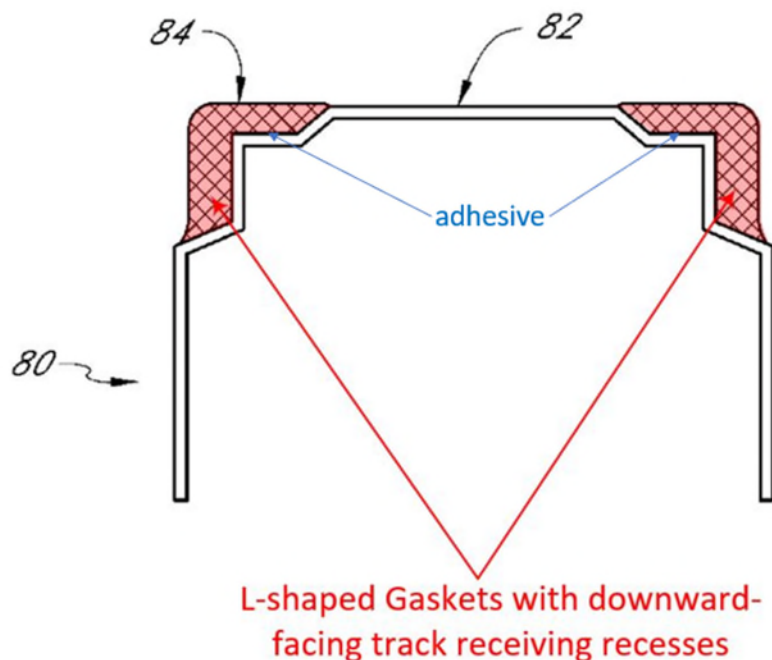
1. Combination of Pilz I in view of Morgan and Pilz II

A POSITA would have found it obvious to modify Pilz I’s gasket construction and strap assembly in view of Morgan. Ex. 1003, ¶¶59-66. As explained below, Pilz I discloses each limitation of claim 6 except that Pilz I leaves to the POSITA the precise location of the adhesive used to adhere the L-shaped gasket sections to the ceiling track. *Id.*, ¶58. Indeed, Pilz I expressly discloses that “intumescent

material 50” (of the embodiment disclosed in Fig. 6B) may “include adhesive backing, which permits the intumescent material 50 to be secured to . . . wall component 56.” Ex. 1004, ¶0049; Ex. 1003, ¶60. Thus, Pilz I expressly discloses that it was known to place an “adhesive backing” on intumescent material, such as intumescent material 84 of the embodiment disclosed in Fig. 10A (as well as Fig. 9). Ex. 1003, ¶60.

While Pilz does not expressly disclose the location of the adhesive backing, a POSITA would have understood this to be an obvious design choice. *Id.* This is consistent with the Examiner’s finding during prosecution—which Patent Owner did not contest—that “it would have been an obvious design choice to use the adhesion configuration such as specified in these claims.” Ex. 1002 at 55-56.

One such obvious design choice would be to place the adhesive backing on the upper panels of Pilz I’s L-shaped gasket sections such that those panels could be adhesively connected to the horizontal portion of the ceiling track as shown in the figure below. Ex. 1003, ¶61.



Ex. 1004, Fig. 9 (annotated); Ex. 1003, ¶61.⁶

To that end, Morgan confirms that it was known to place an adhesive backing on the bottom side of an upper panel of an L-shaped insulating gasket section. Ex. 1003, ¶62. Morgan discloses that the insulating gasket may include “a pressure sensitive adhesive layer, grommets, or other means for allowing the bag to be adhered or mechanically attached to a wall, ceiling, floor, or other building or vessel structure.” Ex. 1005 at 14:10-19; Ex. 1003, ¶62. Morgan continues: “For example, the bottom side 30B of the bag 30 shown in FIG. 5 can be supplied with a two-sided

⁶ A POSITA understands that the L-shaped gasket sections of Pilz I may be applied on site or prior to delivery of the ceiling track. Ex. 1003, ¶61, n. 8.

tape, covered by a releasable sheet, to permit the bag device 30 to be adhered to the horizontal track 12 before it is fastened to or disposed against the ceiling, as illustrated in FIGS. 3 and 4.” Ex. 1005 at 14:14-19. Accordingly, Morgan discloses that it was known to place an adhesive on the portion of an L-shaped gasket section that is directly above the horizontal section of a ceiling track. This confirms that—as the Examiner found and Patent Owner conceded—the claimed location of adhesive means was a known design choice. Ex. 1003, ¶62.

A POSITA would have been motivated to combine Morgan’s adhesive location with Pilz I’s L-shaped gasket sections and fire strap of Fig. 10A as an obvious design choice. *Id.*, ¶63. Pilz I states: “In at least some embodiments, the gasket 120 can be adhered to a surface of the second wall component 114 such that when the second wall component is attached to, pressed, and/or placed against the fire strap 116, the gasket or gaskets 120 can form a sound and/or air seal, inhibiting sound and/or air from moving from one side of the second wall component 114 to the other.” Ex. 1004, ¶0058; Ex. 1003, ¶63. Pilz I leaves a choice for the precise location of the adhesive to the skilled artisan. Ex. 1003, ¶¶61-64.

Accordingly, a POSITA would look to other art disclosing L-shaped gasket sections in a head-of-wall assembly, such as Morgan. *Id.* And Morgan discloses an obvious design choice for the location of the adhesive. *Id.* Indeed, there are a finite number of design choices for the location of the adhesive, including: a) the portion

of the L-shaped gasket section that extends over the horizontal portion of the ceiling track (e.g., the upper panel); b) the portion of the L-shaped gasket section that extends downward across the vertical portion of the ceiling track (e.g., the side panel); and c) an adhesive that spans the locations of both a) and b). *Id.*, ¶64. Placing the adhesive on the upper panel of the L-shaped gasket sections also has the benefit of ensuring the upper panel does not shift when the ceiling track is affixed to the ceiling. *Id.*

A POSITA would have further been motivated to place the adhesive at a position between the gasket upper panels of the L-shaped gasket sections and the main track section of the ceiling track because doing so would allow for free movement of the portion of the L-shaped gasket sections that extends across the vertical portions of the ceiling track. *Id.*, ¶65. A POSITA would understand that the wall assembly including the L-shaped gasket sections and ceiling tracks will move vertically and horizontally due to normal forces exerted on a building (e.g., human movement, wind, etc.). *Id.* If a side gasket panel were affixed to the side of a standard ceiling track (such as wall component 72 in Fig. 8 of Pilz I), the building movement could place undue stress on the L-shaped gasket sections causing them to tear. *Id.* A POSITA would be motivated to avoid such damage to L-shaped gasket sections. *see also KSR*, 550 U.S. at 420 (“[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason

for combining the elements in the manner claimed.”).

As another example, Morgan discloses that “in FIG. 2, gypsum wallboards 18 are affixed on either side of the studs 14 to complete the wall assembly (PRIOR ART), and gaps 20 are typically left between the tops of the gypsum wallboard 18 and horizontal track 12 to permit movement of the wallboards 18.” Ex. 1005 at 4:42-47; Ex. 1003, ¶66. Thus, it was known to allow for vertical movement of wallboards. Pilz II also discloses this. Ex. 1003, ¶66.

If the side gasket panel were adhered to the side track section, the vertical movement of the wall boards could cause friction against the L-shaped gasket side panels and risk destroying the L-shaped gasket sections. Ex. 1003, ¶66. Adhering the upper panel to the ceiling track and leaving the side panel free to move will avoid such friction as the side panel is able to move laterally as the wallboards move vertically. *Id.*

Combining Pilz I and Morgan merely involves combining prior art elements according to known methods to yield predictable results, and use of known techniques to improve similar devices in the same way. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 415-421 (2007); Ex. 1003, ¶66.

A POSITA understands that Pilz I’s insulating gasket section can be positioned on a wall assembly of any size, including “wider than standard” wall configurations. Ex. 1003, ¶67. However, to the extent a POSITA had any doubt as

to Pilz I's disclosure, Pilz II expressly discloses that it was known to vary the size of L-shaped gasket sections to seal "a wall assembly that is wider than standard width" as discussed *supra*. *Id.*, ¶68; *see also* Ex. 1006 at 18:30-38 ("Accordingly, if the angle 200 is configured for use with a wall assembly that is wider than standard width, the width of the horizontal leg 220 can be increased to, for example, about 1 1/2 inches to about 3 inches, or more."). A POSITA would be motivated to consider Pilz II's disclosure in this regard to obtain the benefit of flexibility in the width of a wall assembly that can be sealed. *Id.* Indeed, Pilz II discloses: "The web of the header track can be any suitable width. For example, the web can have a width between about 2 1/2 and 10 inches, with specific lengths of about 3.5 inches, 4 inches, 5.5 inches, 6 inches and 7.5 inches, among others." Ex. 1006 at 15:66-16:2; Ex. 1003, ¶68.

The flexibility provided by the combined gasket of Pilz I in view of Morgan and Pilz II would be advantageous in the marketplace due to economic pressures for a flexible gasket that can accommodate different sized wall assemblies, which may arise based on unknown and subjective job site conditions (e.g., stud size, double walls for soundproofing, etc.). Ex. 1003, ¶68.

A POSITA would reasonably expect to be successful in making the combination of Pilz I in view of Morgan and Pilz II. Ex. 1003, ¶69. The technology at issue is mechanical in nature and predictable. *Id.* The references disclose well-

known components that are combinable with ordinary skill. *Id.* There is nothing unpredictable that would result from the combination. *Id.* Moreover, the three references all disclose insulating gaskets with which a POSITA would be well familiar and would readily recognize as combinable with—at the very least—a reasonable expectation of success. *Id.*

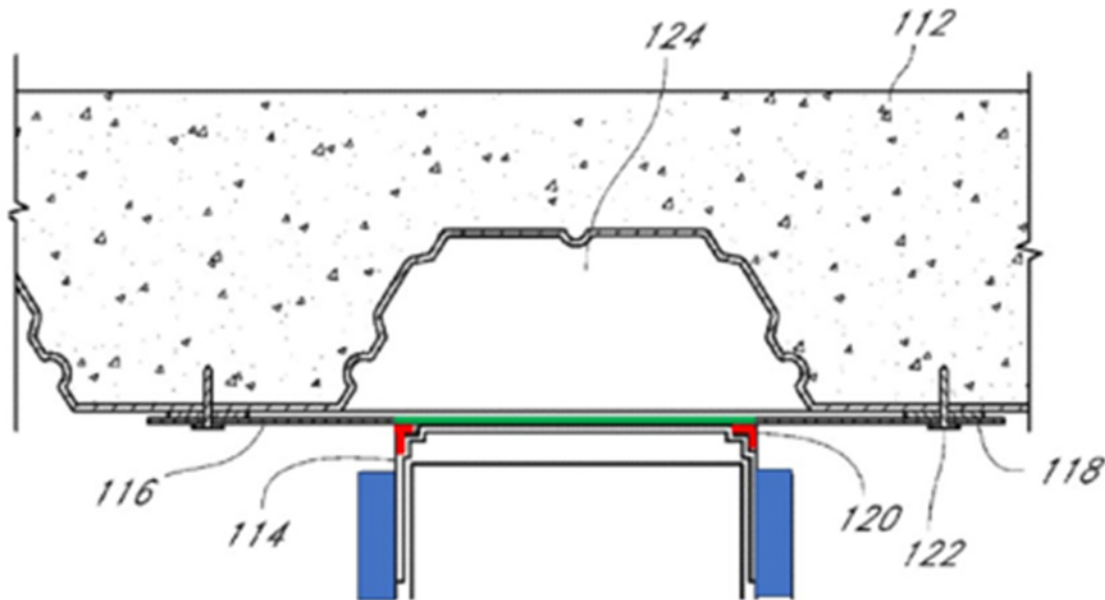
2. Obviousness based on Pilz I + Morgan + Pilz II

a. [6pre]⁷

Pilz I discloses “[a]n adjustable head-of-wall insulating construction for sealing a head-of-wall area between a ceiling thereabove and a wall configuration therebelow which is wider than standard,” as recited in the preamble of claim 6.⁸ Ex. 1003, ¶¶71-72. For example, Fig. 10 of Pilz I discloses:

⁷ Petitioner assumes the preamble is limiting for purposes of this IPR. In the District Court Litigation, Patent Owner has taken the position that the preamble is non-limiting. The Board need not resolve the parties’ dispute because the preamble is met (although according to Patent Owner’s position, Petitioner’s demonstration of a reasonable likelihood of unpatentability is even clearer).

⁸ As Morgan explains, “a ‘head-of-wall’” joint gap appears between the top of a vertical wall and ceiling.” Ex. 1005 at 4:32-33; Ex. 1003, ¶72.



Ex. 1004, Fig. 10B (annotated); Ex. 1003, ¶72.

Pilz I explains that “first wall component 112 can comprise a floor, ceiling, overhang, or any other type of wall component.” Ex. 1004, ¶0056; Ex. 1003, ¶73. Wall boards (colored blue above) extend vertically on both sides of ceiling track 114 to form a wall. Ex. 1003, ¶73. Pilz I’s insulating gasket seals the area between the ceiling and the top of the walls. *Id.*

Pilz I’s gasket consists of two L-shaped gasket sections 120 (colored red in the above figure) and a fire strap 116 (colored green), which seal the areas between the ceiling and the wall assembly. *Id.* Pilz I explains that “the gasket 120 can be adhered to a surface of the second wall component 114 such that when the second

wall component is attached to, pressed, and/or placed against the fire strap 116, the gasket or gaskets 120 can form a sound and/or air seal...” Ex. 1004, ¶¶0058; Ex. 1003, ¶73.

Pilz I’s insulating gasket is “adjustable” because the L-shaped gasket sections 120 and fire strap 116 can be positioned on any sized ceiling track to seal the area between the ceiling and the wall assembly. Ex. 1003, ¶¶74-75. For example, the L-shaped gasket sections will be positioned on both corners of the ceiling track regardless of its size (e.g., 2 1/2 inches, 3 5/8 inches, 6 inches, etc.). Ex. 1003, ¶75. The fire strap 116 can be cut to an appropriate size depending on the ceiling track. *Id.* In other words, Pilz I’s gasket assembly is adjustably variable in lateral dimension to fit whatever sized ceiling track a POSITA would encounter. *Id.*

Because Pilz I’s insulating gasket can be positioned on any sized wall-configuration, it can be positioned on a “wider than standard” wall configuration.⁹ *Id.*, ¶76. Indeed, Pilz I teaches that “[v]arious geometries and designs may be used

⁹ Petitioner contends that the phrase “wider than standard” makes claim 6 indefinite at least because the ’232 patent provides no objective measure against which the term of degree can be judged. However, because Pilz I can be used on a wall of any size, it can be used on a “wider than standard” wall even assuming the scope of this term is capable of being understood with reasonable certainty.

in the wall components to accommodate the use of fire-retardant material.” Ex. 1004, ¶0077; Ex. 1003, ¶76.

As explained *supra*, to the extent a POSITA had any doubt as to whether Pilz I’s gasket could be used on a “wider than standard” wall assembly, a POSITA would be motivated to look to Pilz II, which expressly identifies the advantages to be gained from a gasket assembly that has the flexibility to seal wall assemblies of all sizes. Ex. 1006 at 7:2-4 (“Accordingly, if the angle 20 is configured for use with a wall assembly that is wider than standard width . . .”); *Id.* at 15:66-16:2 (“The web of the header track can be any suitable width. For example, the web can have a width between about 2½ and 10 inches, with specific lengths of about 3.5 inches, 4 inches, 5.5 inches, 6 inches and 7.5 inches, among others.”); Ex. 1003, ¶76.

The wall configuration of Pilz I includes “a ceiling track having a main track section which extends generally horizontally and a first track side section extending downwardly therefrom and a second side track section extend downwardly therefrom at a position spatially disposed from the first track section wherein the main track section includes a first track side section defining a first lowermost edge thereof and a second side track section defining a second lowermost edge thereof,” as recited in claim 6 and shown in the annotated figure below. Ex. 1003, ¶77.

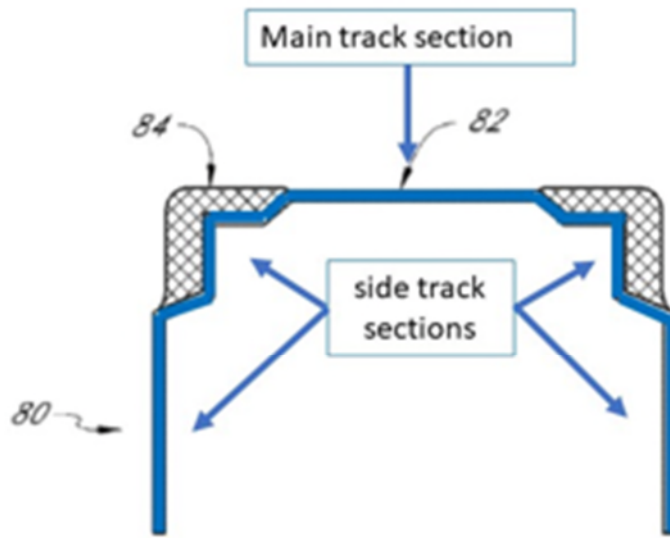


FIG. 9

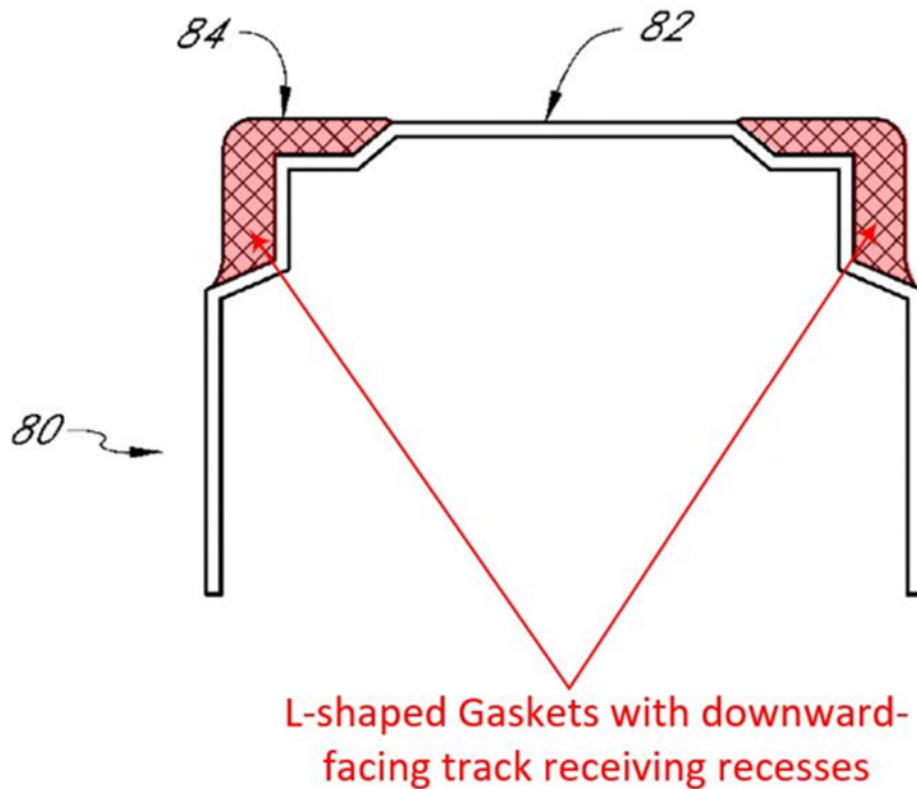
Exhibit 1004, FIG. 9 (annotated).

b. [6a] [6b]

Pilz I discloses first and second L-shaped gasket sections as shown below.

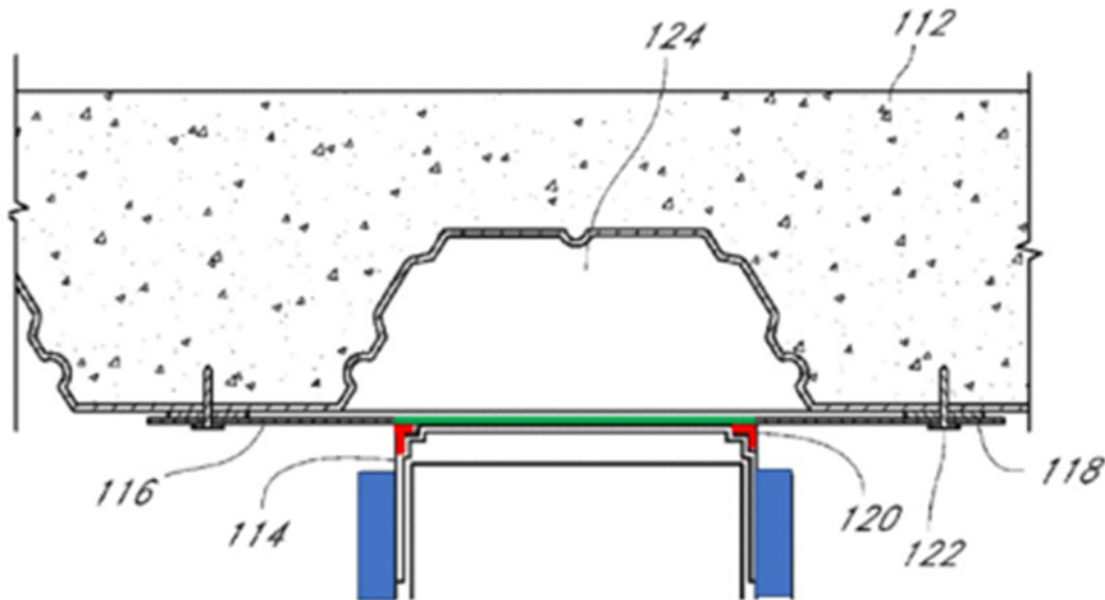
Ex. 1004, FIGs. 9, 10A, [0054], [0058] (“intumescent material 84,” “gasket 120”).

Ex. 1003, ¶78.



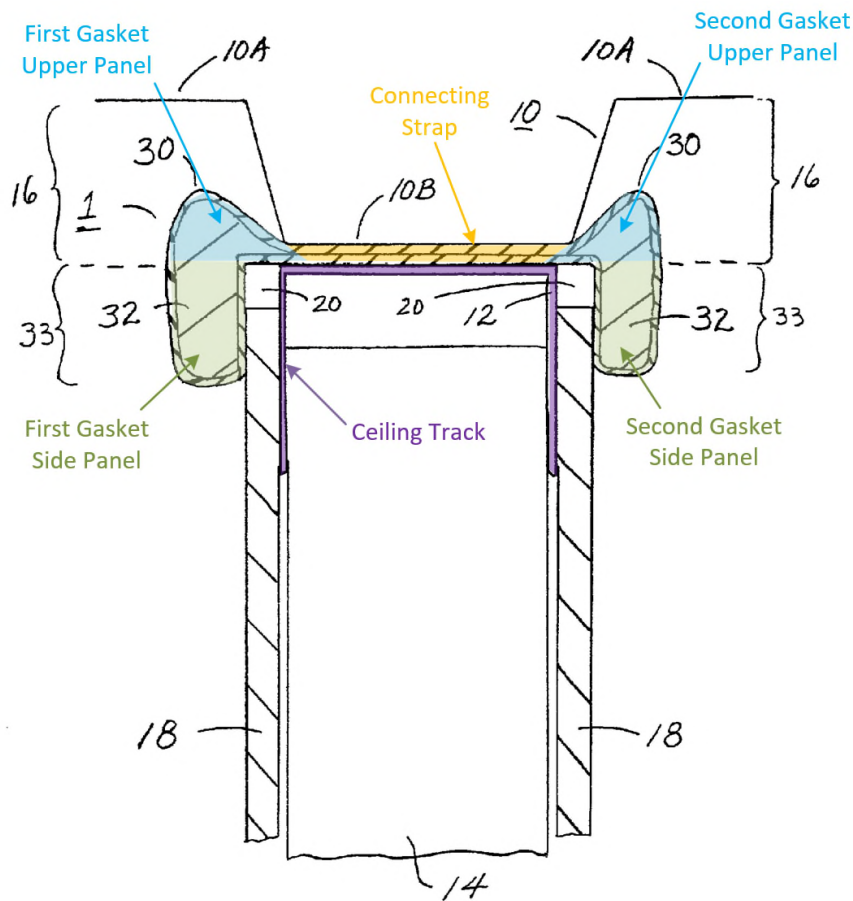
Ex. 1004, Fig. 9 (annotated).¹⁰

¹⁰ A POSITA would understand that the ceiling track illustrated in Fig. 9 is substantially the same as the ceiling track shown in Fig. 10B. For ease of illustration, the Petition may refer to Fig. 9 as showing the structure of the L-shaped gasket sections and ceiling track of Fig. 10B. Ex. 1003, ¶79.



Id., Fig. 10B (annotated).

Gaskets with L-shaped sections were well-known in the firestopping industry prior to the effective filing date of the '232 patent. Ex. 1003, ¶80. For example, Morgan discloses an insulating gasket with two L-shaped sections as shown in the annotated figure below. *Id.*



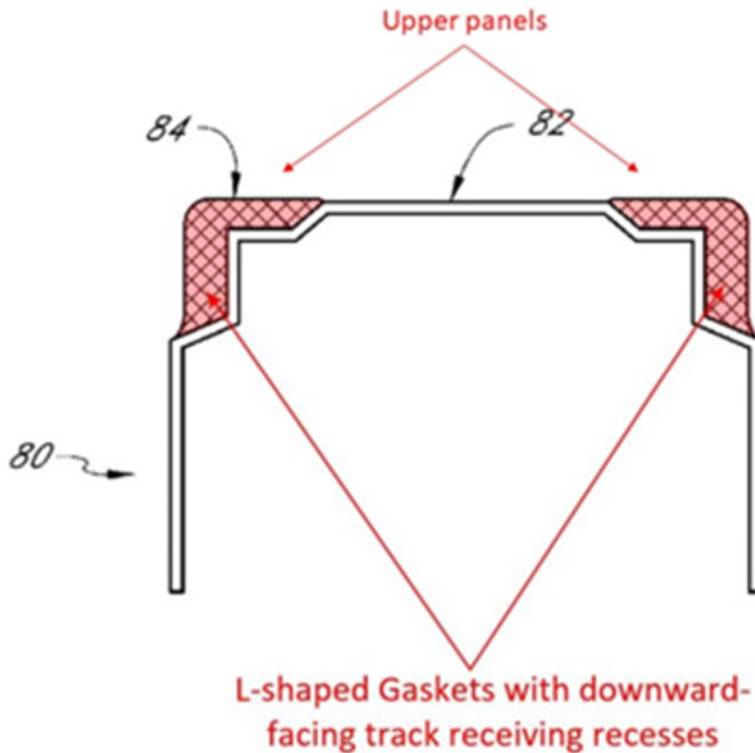
Ex. 1005, Fig. 4.

Indeed, given the U-shape of the ceiling tracks on which insulating gaskets are positioned, the use of two L-shaped gasket sections is all but a necessity to seal the ceiling track. Ex. 1003, ¶80.

c. [6a1] [6b1]

Pilz I discloses that the two L-shaped gasket sections each include gasket upper panels of insulating material (e.g., intumescent material) positioned immediately above a main track section and extending horizontally thereover. Ex.

1004, FIGs. 9, 10A, [0054] (“here the intumescent material 84 extends *both along a portion of the top and side surfaces of the wall component 80*”); Ex. 1003, ¶81. The figure below illustrates the gasket upper panels claimed in claim 6. Ex. 1003, ¶81.

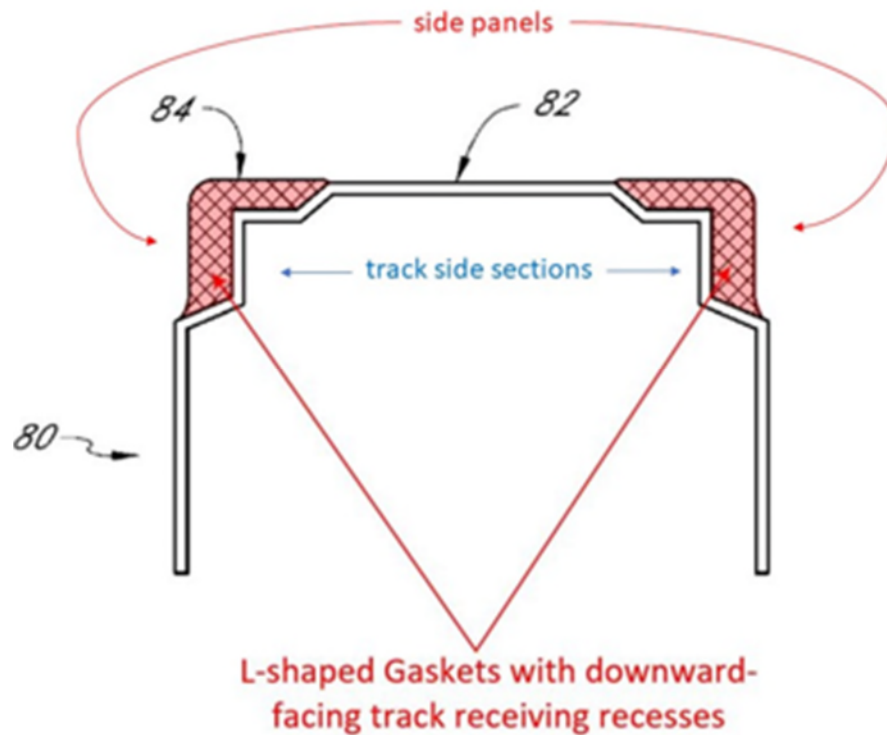


Ex. 1004, Fig. 9 (annotated).

d. [6a2] [6b2]

Pilz I discloses that the two L-shaped gasket sections each include gasket side panels of insulating material (e.g., intumescent material) attached to the respective gasket upper panels and that extend generally downwardly from the upper panel and across respective track side sections for insulating thereover. Ex. 1004, FIGs. 9,

10A, [0054] (“here the intumescent material 84 extends both along a portion of the top and side surfaces of the wall component 80”); Ex. 1003, ¶82.



Ex. 1004, Fig. 9 (annotated).

As shown in the figure, the side panels are attached with respect to the upper panels and extend generally downwardly from the upper panels and across the track side sections of the ceiling track. Ex. 1003, ¶83. This has the effect of insulating the side track sections. *Id.* The extension of the side panels from the upper panels defines the generally L-shaped configuration of the L-shaped gasket section. *Id.* The gasket upper panels and side panels together define a track receiving recess facing downwardly therebelow. *Id.*

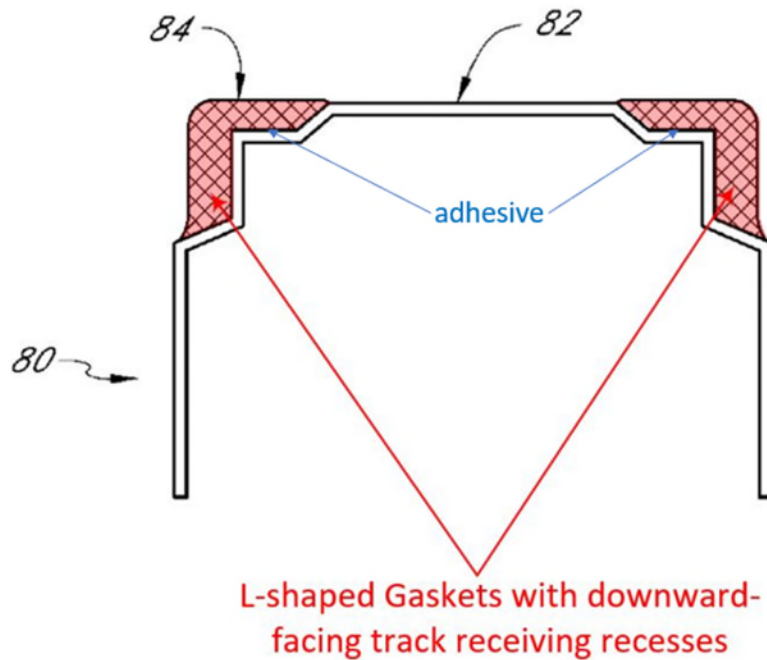
e. [6c] [6d]¹¹

In the combined gasket of Pilz I in view of Morgan and Pilz II, the L-shaped gasket sections are adhesively mounted to the main (horizontal) track section of the respective ceiling track to facilitate engagement between the ceiling track and the L-shaped gasket sections. Ex. 1003, ¶84; Ex. 1004, [0058] (“the gasket 120 can be *adhered to a surface of the second wall component 114* such that when the second wall component is attached to, pressed, and/or placed against the fire strap 116, the gasket or gaskets 120 can form a sound and/or air seal...”)

As explained *supra*, while Pilz I discloses an adhesive layer, it does not disclose the precise location. Ex. 1003, ¶¶58-66, 85. However, a POSITA would be motivated to look to Morgan, which also discloses an insulating gasket with two L-shaped gasket sections. *Id.* Indeed, as the Examiner found during prosecution—a finding Patent Owner did not challenge—“it would have been an obvious design choice to use the adhesion configuration such as specified in these claims.” Ex. 1002 at 55.

¹¹ While claim elements [6c] and [6d] recite an “adhesive means” neither Petitioner nor Patent Owner have argued that this element should be construed according to 35 U.S.C. § 112(f). However, even if it were, Morgan’s adhesive tape would still meet the claim because the adhesive tape is plainly an “adhesive means.”

The figure below identifies the location of the adhesive in the combined system. Ex. 1003, ¶85.



Ex. 1004, Fig. 9 (annotated); Ex. 1003, ¶85.

f. [6e]

Pilz 1 discloses at least one connecting strap positioned above the main track section and attached to said first L-shaped gasket section and to said second L-shaped gasket section to limit spatial separation therebetween in the form of “fire strap 116” (also referred to as a “flat strap”). Ex. 1003, ¶86; Ex. 1004, FIG. 10A, [0058] (“the gasket 120 can be adhered to a surface of the second wall component 114 such that *when the second wall component is attached to, pressed, and/or placed against the fire strap 116, the gasket or gaskets 120 can form a sound and/or air*

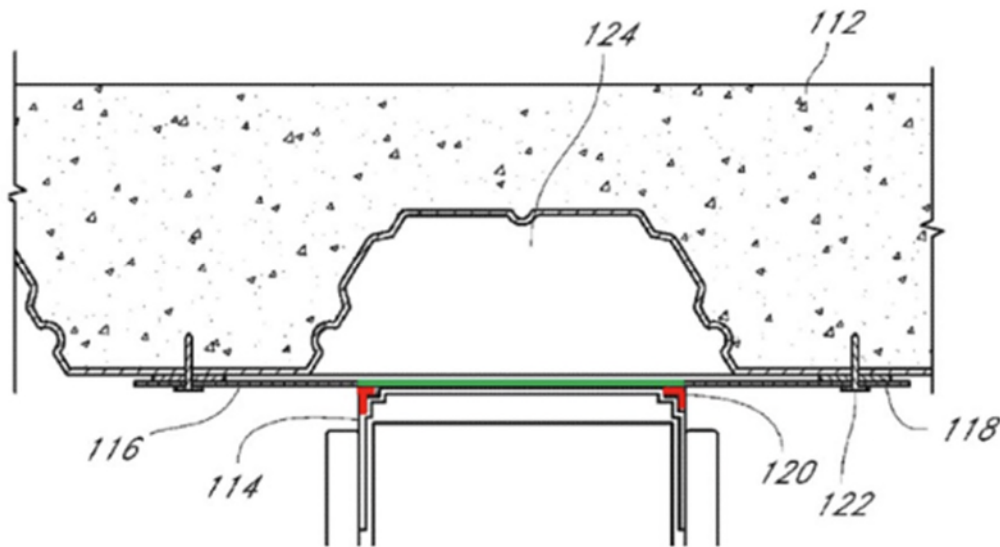
seal...”).¹²

Pilz I explains that L-shaped gasket sections 120 can be adhered to ceiling track 114 (Ex. 1004, ¶0057) such that when the ceiling track 114 is attached to, pressed, and/or placed against the fire strap 116, the gasket or gaskets 120 can form “a sound and/or air seal, inhibiting sound and/or air from moving from one side of the ceiling track to the other.” Ex. 1004, ¶0058; Ex. 1003, ¶87. Alternatively, Pilz I discloses that fire strap 116 can be attached directly to the ceiling track. Ex. 1004, ¶0059. As such, the fire strap (also referred to as a flat strap) is attached to the two L-shaped gaskets 120, which are adhered to the ceiling track. Ex. 1003, ¶87. The result is a gasket comprising L-shaped gasket sections connected by a connecting strap that is positioned above the ceiling track.¹³ *Id.* This can be seen with reference

¹² In the District Court Litigation, the parties dispute the plain meaning of “connecting strap.” Ex. 1009 at 10-11. Petitioner argues that the “connecting strap” be in place when the gasket is *positioned* on the track. Patent Owner advocates for a broader construction, but the Board need not resolve this dispute concerning the plain meaning of this term because Pilz I’s fire strap 116 meets this limitation under either party’s construction. Ex. 1003, ¶87, n. 10.

¹³ This limitation requires only that the connecting strap be “*positioned*” above the

to the annotated figure below. *Id.*



Ex. 1004, Fig. 10B (annotated).

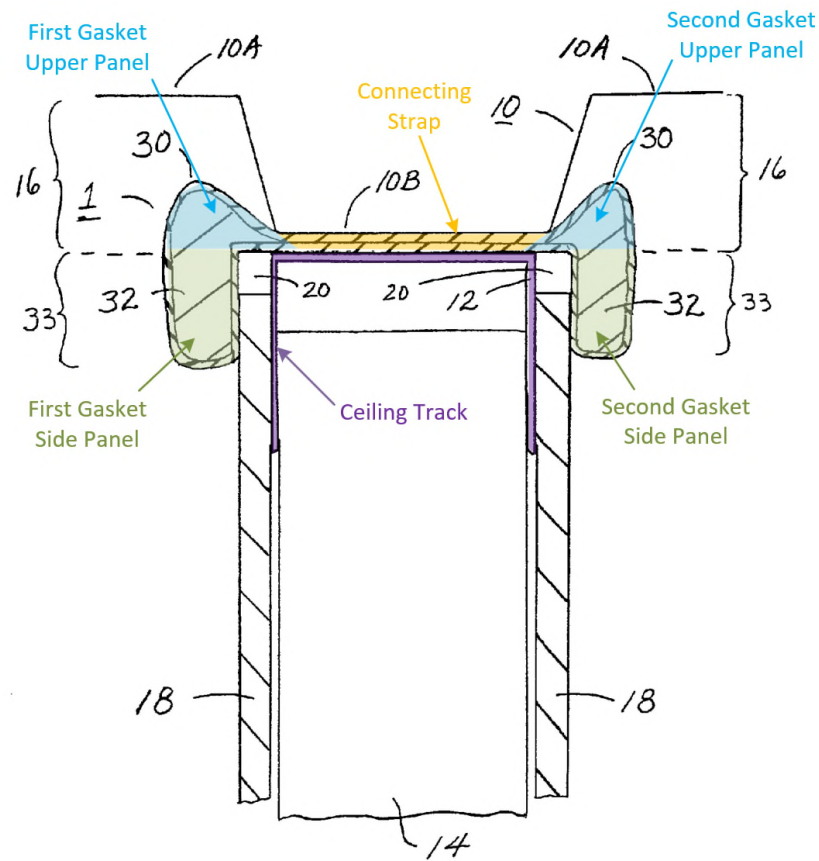
When fire strap 116 is attached to the two L-shaped gasket sections, it will limit the spatial separation between the L-shaped gasket sections. Ex. 1003, ¶88.

main track section and attached to the L-shaped gasket sections. It does not limit when the strap must be positioned and attached to the L-shaped gasket sections. Nor does it prevent a portion of the connecting strap from extending beyond the edges of the L-shaped gasket sections. Accordingly, a POSITA would understand that claim 6 covers both gaskets that are preformed and then installed as well as gaskets that are formed as their components are installed. Indeed, the claim requires the gasket to be actually “positioned,” not just positionable. Ex. 1003, ¶46, n. 9.

Indeed, any strap that connects two objects will limit spatial separation between those two objects (*i.e.*, the space between the two objects is limited by the strap connecting those two objects).¹⁴ *Id.*

Morgan further discloses that it was known to use a connecting strap to connect two L-shaped gaskets. *Id.*, ¶89. This can be seen with reference to the annotated figure from Morgan below. *Id.*

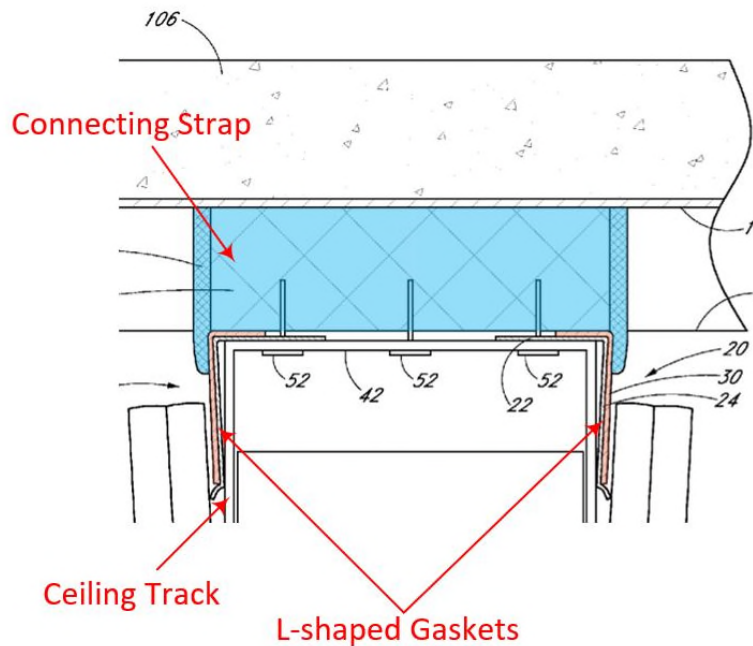
¹⁴ The fact that other objects (e.g., adhesive) may contribute to the limiting of spatial separation between the two L-shaped gasket sections is of no importance because claim 6 does not require the connecting strap to be the sole component that may limit spatial separation between the two L-shaped gasket sections. Ex. 1003, ¶88, n. 11.



Ex. 1005, Fig. 4 (annotated).

Pilz II similarly discloses the use of material to strap two L-shaped gasket sections together. Ex. 1003, ¶90.

Pilz II FIG. 12 Excerpt



The disclosures of Morgan and Pilz II serve to confirm a POSITA's understanding of Pilz I's fire strap 116 as a connecting strap attached to L-shaped gasket sections, which limits the spatial separation therebetween. Ex. 1003, ¶¶91.

g. [7]

Pilz I's fire strap 116 is attached to the first gasket upper panel of said first L-shaped gasket section and is also attached with respect to the second gasket upper panel of said second L-shaped gasket section as discussed *supra* when the L-shaped gasket sections are adhered to the fire strap 116 (either prior to or at the time of attaching the ceiling track to the ceiling). Ex. 1003, ¶¶92-93.

h. [8]

In the combined system of Pilz I in view of Morgan and Pilz II, the L-shaped gasket sections are adhered to the top of the ceiling track, leaving the vertical sides of the L-shaped gaskets free to move. Ex. 1003, ¶94. As such, the first and second side gasket panels are spatially disposed from the first and second side track sections. *Id.* This will allow the side panel to move relative to the side track sections. *Id.* Such movement would be responsive to movement between the wall configuration and the upper building structure above it (e.g., the ceiling). *Id.*

i. [9]

Pilz I's "gasket upper panels" and "gasket side panels" of the two L-shaped gasket sections are both made from an insulating material that includes a firestopping insulating component in the form of an intumescent material. Ex. 1003, ¶95. In Pilz I FIG. 9, the L-shaped gaskets are described as "intumescent material 74," which Pilz I describes as "work[ing] well for [the] purpose" of "substantially block[ing] the path of the fire, heat, and smoke for at least some period of time." Ex. 1004, ¶¶0005, 0055; Ex. 1003, ¶95. Furthermore, gasket 120 "can itself comprise a strip of fire-retardant material, including but not limited to intumescent material." Ex. 1004, ¶0058; Ex. 1003, ¶95.

j. [10]

See claim 9, *supra*. Ex. 1003, ¶96.

k. [11]

Pilz I discloses gaskets with a “first gasket upper panel” and a “first gasket side panel” (*see* elements [6a1] and [6b1]) that are made from an insulating material that includes an acoustical insulating component. Ex. 1003, ¶95. In Pilz I FIG. 10A, “the gasket or gaskets 120 can form a *sound* and/or air *seal*.” Ex. 1004, [0058]; Ex. 1003, ¶97. Because the insulating gasket inhibits the transfer of sound, a POSITA would understand that the insulating material of Pilz I would include an acoustical insulating component therewithin. Ex. 1003, ¶97.

l. [12]

In Fig. 10B of Pilz I, the upper and side panels of the L-shaped gasket sections are formed from a single piece of intumescent material. Ex. 1004, Fig. 10B, ¶0058; Ex. 1003, ¶98. A POSITA would thus understand that the upper panels are integrally formed with respect to the side panels of Pilz I’s L-shaped gasket sections. Ex. 1003, ¶98.

B. [GROUND 1B] – Claims 6, 7, 8, 9, 10, 11, and 12 are rendered obvious by Pilz I in view of Morgan and Pilz II

1. Combination of Pilz I in view of Morgan and Pilz II

Pilz I discloses an additional embodiment, which renders claims 6-12 obvious. Ex. 1003, ¶99. Specifically, Pilz I discloses a C-shaped gasket embodiment discussed with reference to Fig. 8. *Id.*, ¶100. Pilz I explains that Fig. 8 discloses track 72 (colored blue) for holding a wall stud 20 beneath a ceiling 18. Ex. 1004,

¶0054; Ex. 1003, ¶100. Intumescent material 74 (colored red) is attached to the track 72 as shown in the below figure. Ex. 1003, ¶100.

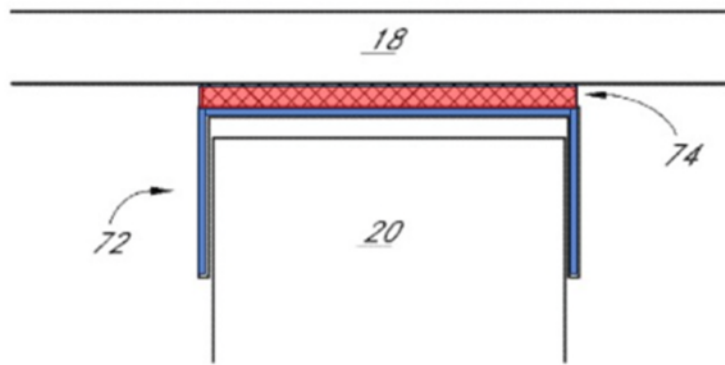


FIG. 8

Ex. 1004, Fig. 8 (annotated).

From Pilz I's disclosure, a POSITA would understand that intumescent material 74 can be "attached to the top surface of" track 72 by means of an "adhesive backing" as described with reference to the embodiments of Figs. 6A and 6B. Ex. 1003, ¶101.

Pilz I further explains that "in some embodiments the intumescent material may extend down one or both sides of the wall component 72." Ex. 1004, ¶0054; Ex. 1003, ¶102. The figure below illustrates the structure of this embodiment (which is described but not expressly depicted in Pilz I). Ex. 1003, ¶102.

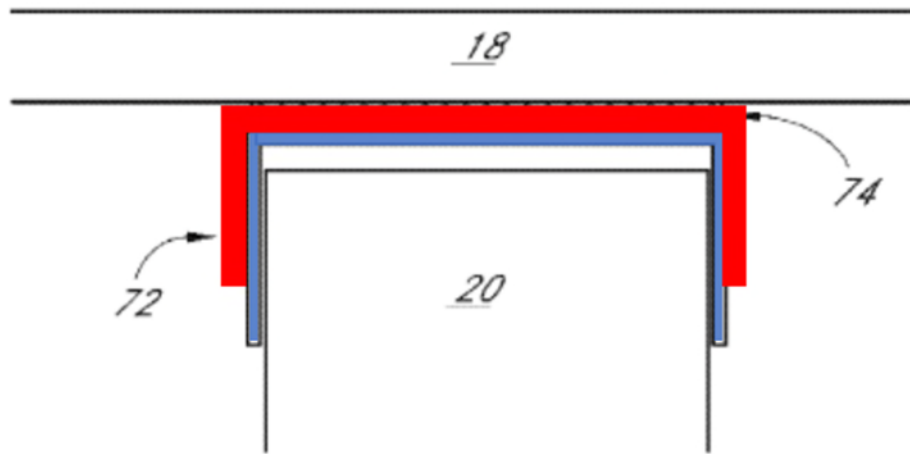


FIG. 8

Exhibit 1004, Fig. 8 (annotated). This C-shaped construction of Pilz I includes two L-shaped gasket sections and a connecting strap to limit the spatial separation between the two, as depicted below. Ex. 1003, ¶103.

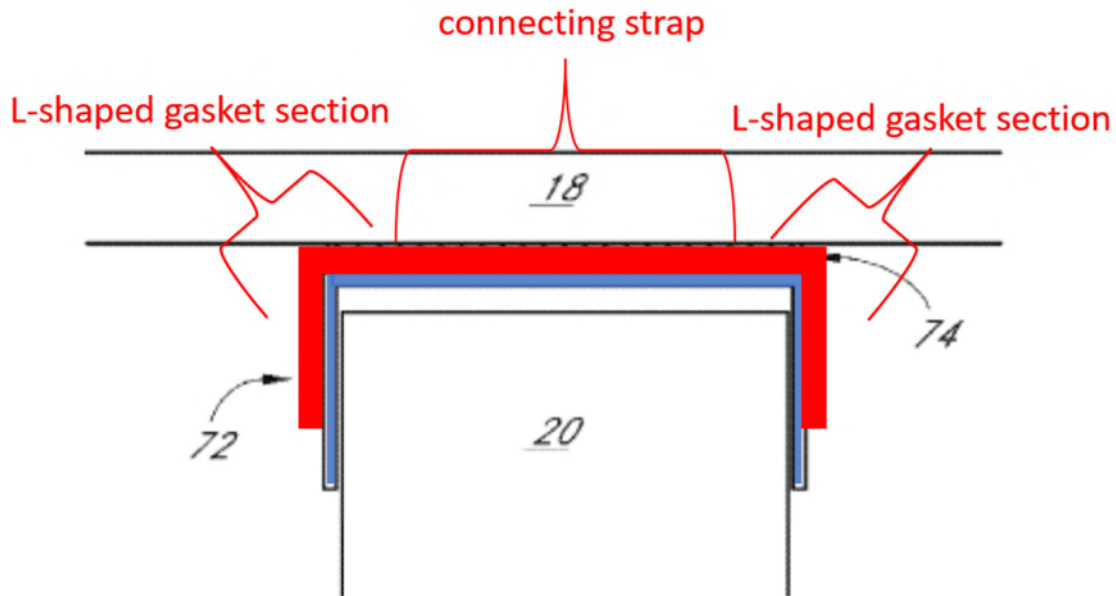


FIG. 8

Ex. 1004, Fig. 8 (annotated).

As explained above, a POSITA would understand that the section of Pilz I's insulating gasket spanning the horizontal portion of the ceiling track may be "attached to the top surface" of ceiling track 72 with an adhesive backing. *See pp.* 25-29; Ex. 1003, ¶104. To the extent this is not expressly disclosed in Pilz I, it would have been obvious in view of Morgan as discussed *supra* with respect to Ground 1A. Ex. 1003, ¶104.

Like the Pilz I embodiment discussed *supra* with respect to Ground 1A, a POSITA would understand that the gasket disclosed in the embodiment of Fig. 8 could be used to seal a wall configuration of any size, including a wall configuration

that is “wider than standard.” *See* pp. 29-30; Ex. 1003, ¶105. For example, intumescent material 74, which extends across the main ceiling track section and down the side track sections, can be cut to any size to seal a wall configuration of any size. To the extent a POSITA has any doubt as to this, a POSITA would look to Pilz II and its express disclosure of a gasket for sealing a wall configuration that is “wider than standard” as discussed *supra* with respect to Ground 1A. *See id.*; Ex. 1003, ¶105.

A POSITA would reasonably expect to be successful in making the combination of Pilz I in view of Morgan and Pilz II. Ex. 1003, ¶106. The technology at issue is mechanical in nature and predictable. *Id.* The references disclose well-known components that are combinable with ordinary skill. *Id.* There is nothing unpredictable that would result from the combination. *Id.* Moreover, the three references all disclose insulating gaskets with which a POSITA would be well familiar and would readily recognize as combinable with—at the very least—a reasonable expectation of success. *Id.*

a. [6pre]

As discussed above with respect to Ground 1A (*see* pp. 31-34), the Board need not resolve the parties’ dispute because the preamble is met. Ex. 1003, ¶107.

As Morgan explains, “a ‘head-of-wall’ joint gap appears between the top of a vertical wall and ceiling (PRIOR ART).” Ex. 1005 at 4:32-33. Pilz I discloses “[a]n

adjustable head-of-wall insulating construction for sealing a head-of-wall area between a ceiling thereabove and a wall configuration therebelow which is wider than standard” as recited in the preamble. Ex. 1003, ¶108. For example, Pilz I discloses a “head-of-wall assembly” with reference to Fig. 8, which depicts intumescent material 74 sealing the area between the ceiling track 72 and the ceiling 18. Ex. 1004, ¶0054; Ex. 1003, ¶108.

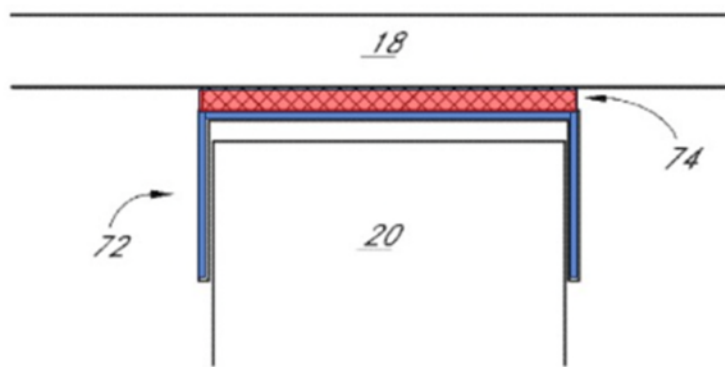
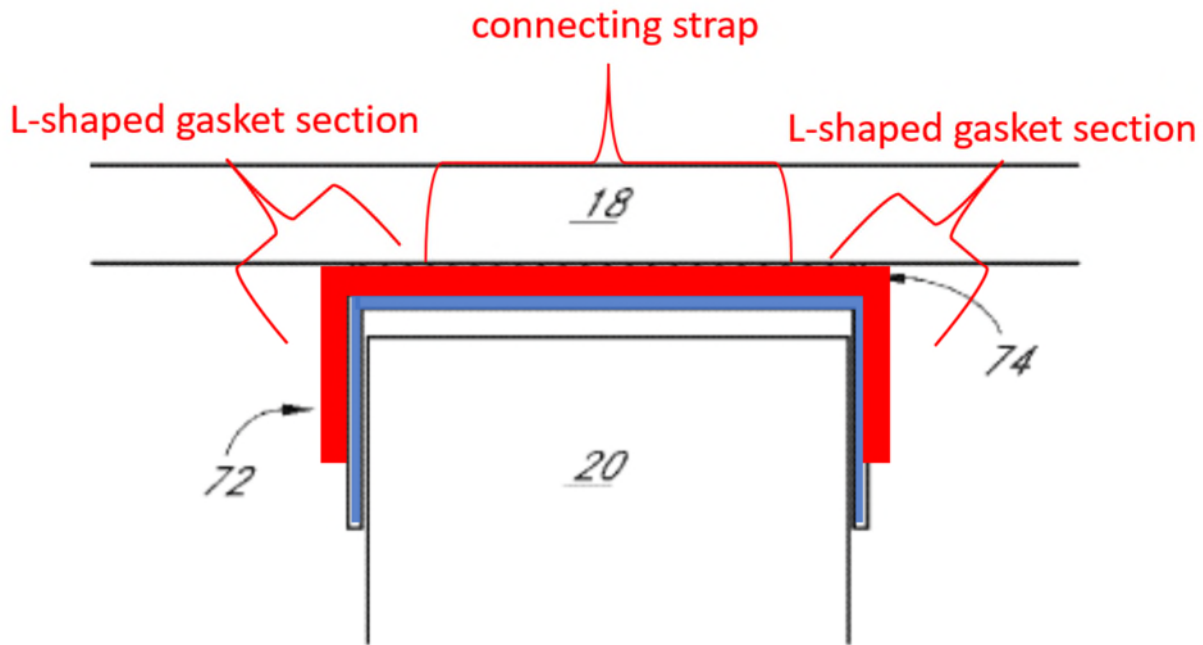


FIG. 8

Ex. 1004, Fig. 8 (annotated).

Pilz I’s gasket seals the head-of-wall joint between the wall configuration and the ceiling. Ex. 1003, ¶109. The insulating construction includes two L-shaped gasket sections and a connecting strap, as shown below. *Id.*



Ex. 1004, Fig. 8 (annotated).

Pilz I discloses an “**adjustable**” head-of-wall insulating construction for sealing a head-of-wall area between a ceiling thereabove and a wall configuration therebelow which is **wider than standard**” because a POSITA would understand that Pilz I’s insulating gasket can be used in connection with a wall configuration of any size as discussed, *supra* (see pp. 52-53). Ex. 1003, ¶¶110-111.

Pilz I’s insulating gasket is “adjustable” because the C-shaped insulating gasket can be positioned on any sized ceiling track to seal the area between the ceiling and the wall assembly. *Id.*, ¶111. Indeed, Pilz I teaches that “[v]arious

geometries and designs may be used in the wall components to accommodate the use of fire-retardant material.” Ex. 1004, ¶0077; Ex. 1003, ¶111. In other words, Pilz I’s gasket assembly is adjustably variable in lateral dimension to fit whatever sized ceiling track a POSITA would encounter. Ex. 1003, ¶111.

As explained *supra* (see pp. 52-53), to the extent a POSITA had any doubt as to whether Pilz I’s gasket could be used on a “wider than standard” wall assembly, a POSITA would be motivated to look to Pilz II, which expressly identifies the advantages to be gained from a gasket assembly that has the flexibility to seal wall assemblies of all sizes. Ex. 1003, ¶112.

The wall configuration of Pilz I includes “a ceiling track having a main track section which extends generally horizontally and a first track side section extending downwardly therefrom and a second side track section extend downwardly therefrom at a position spatially disposed from the first track section wherein the main track section includes a first track side section defining a first lowermost edge thereof and a second side track section defining a second lowermost edge thereof,” as shown in the annotated figure below. Ex. 1003, ¶113.

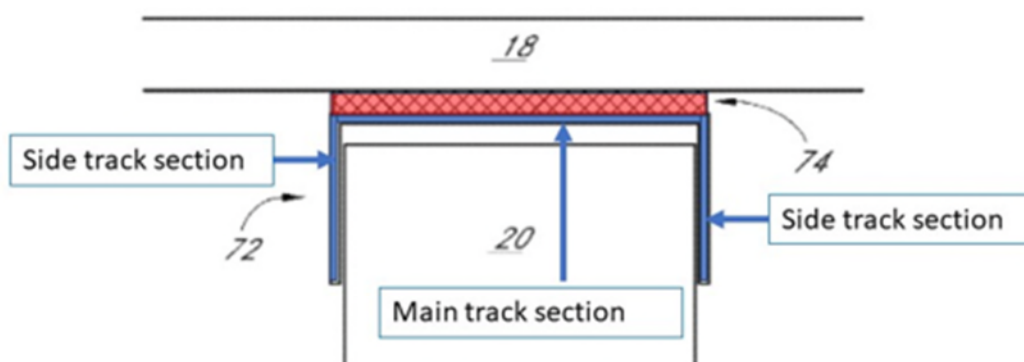


FIG. 8

Ex. 1004, Fig. 8 (annotated).

b. [6a] [6b]

Pilz I discloses first and second L-shaped gasket sections in the C-shaped embodiment described by Pilz I, as shown below. Ex. 1003, ¶114.

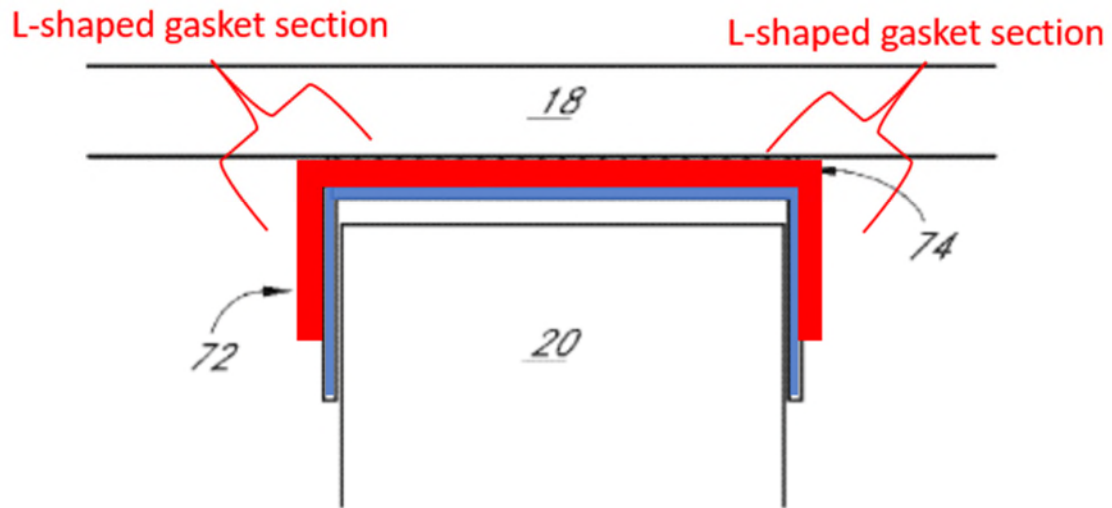
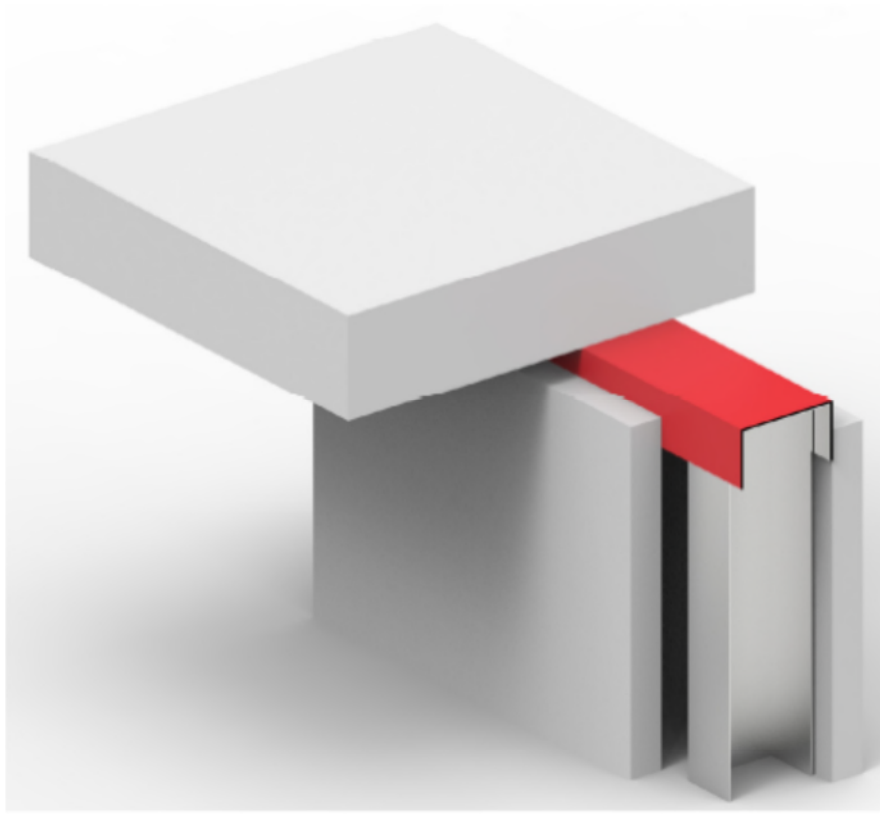


FIG. 8

Id.

Patent Owner argues both in the District Court Litigation and on its website that the '232 patent is practiced by its own C-shaped gasket products, known as the Track Top Gasket (the "TTG"). Ex. 1010 at 1; Ex. 1013 at 20; Ex. 1003, ¶¶115-117; Ex. 1016. Patent Owner's data sheet for its TTG includes a graphical illustration of its C-shaped gasket, which it asserts practices the '232 patent as shown below:



Ex. 1011 at 1.

Thus, Patent Owner acknowledges that a C-shaped gasket includes two L-shaped gasket sections. Indeed, Patent Owner’s gasket looks strikingly similar to the C-shaped embodiment Pilz I disclosed some five years before STI’s earliest claimed filing date.¹⁵

¹⁵ During prosecution, the Examiner found that “Two L shapes are an obvious variation on a single C shape.” Ex. 1002 at 54. Patent Owner did not contest this finding.

c. [6a1] [6b1]

Pilz I discloses that the two L-shaped gasket sections each include gasket upper panels of insulating material (e.g., intumescent material) positioned immediately above a main track section and extending horizontally thereover as shown below with reference to Pilz I's C-shaped gasket embodiment as shown below. Ex. 1004, ¶0054; Ex. 1003, ¶118.

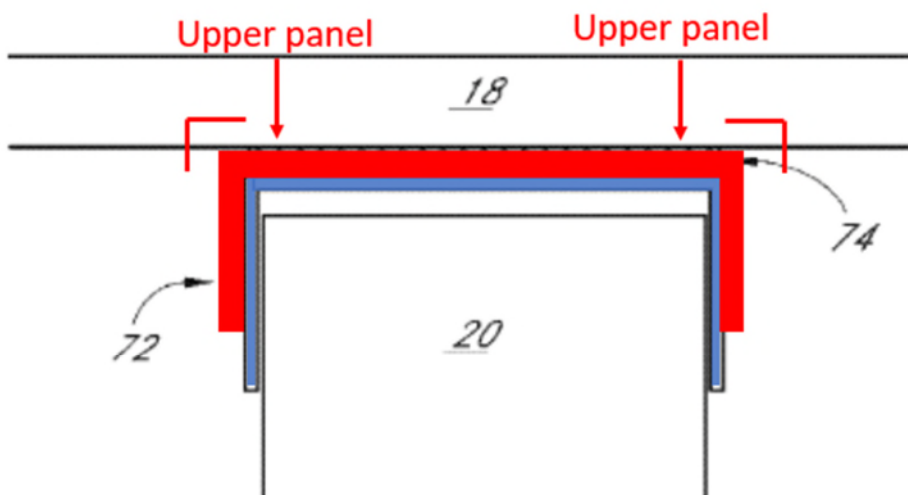


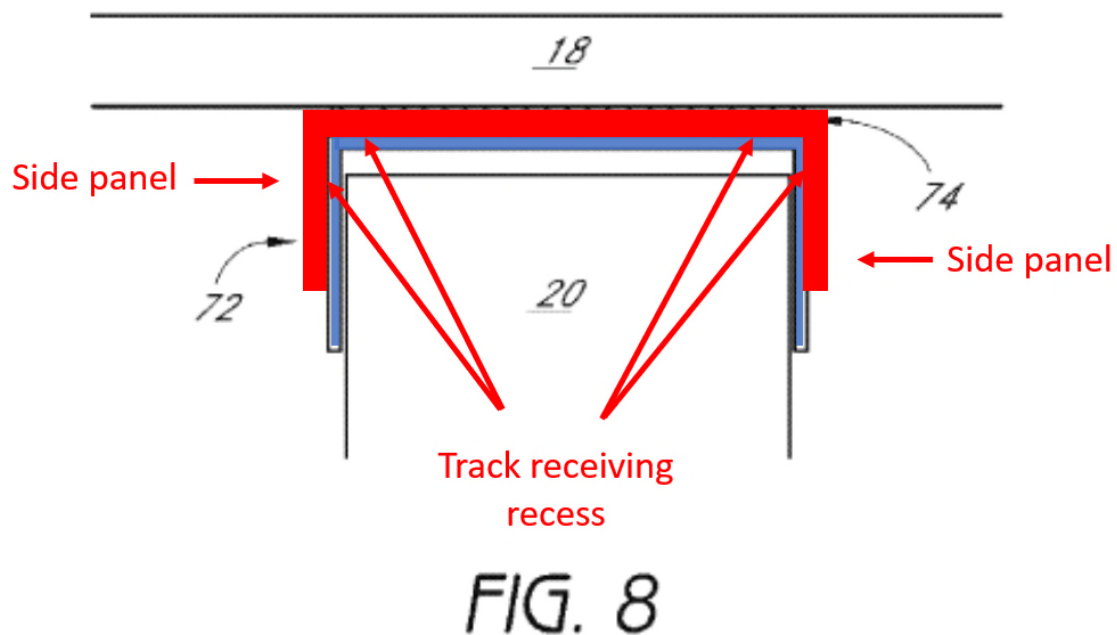
FIG. 8

Ex. 1004, Fig 8 (annotated).

d. [6a2] [6b2]

Pilz I discloses that the two L-shaped gasket sections each include gasket side panels of insulating material (e.g., intumescent material) attached to their respective

gasket upper panels and that extend generally downward across respective track side sections in the C-shaped gasket embodiment as shown in the figure below. Ex. 1004, ¶0054; Ex. 1003, ¶119.



Ex. 1004, Fig. 8 (annotated).

As shown in the figure, the side panels are attached with respect to the upper panels and extend generally downwardly from the upper panels and across the track side sections of the ceiling track. Ex. 1003, ¶120. This has the effect of insulating the side track sections. *Id.* The extension of the side panels from the upper panels defines the generally L-shaped configuration of the L-shaped gasket section. *Id.* The gasket upper panels and side panels together define a track receiving recess facing downwardly therebelow. *Id.*

e. [6c] [6d]

Pilz I discloses that intumescent material 74 is “attached to the top surface” of the ceiling track. Ex. 1004, ¶0054; Ex. 1003, ¶121. Fig. 8 depicts this embodiment as shown below.

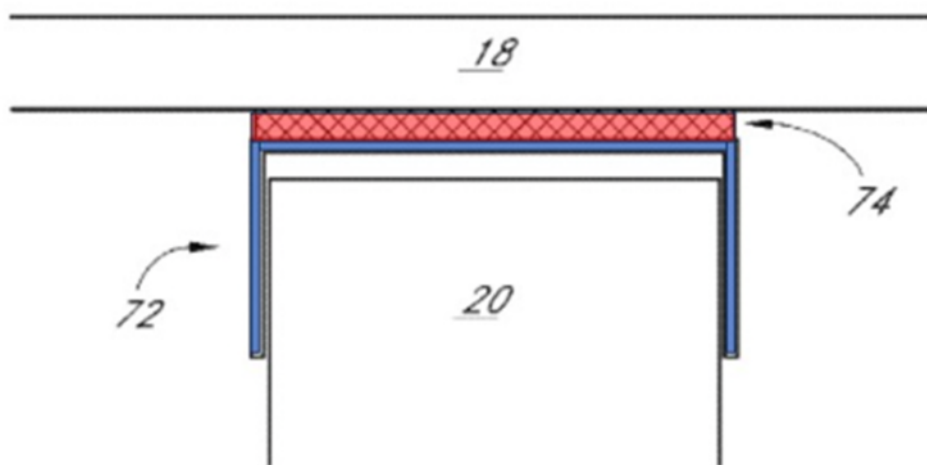


FIG. 8

Ex. 1004, Fig. 8 (annotated).

From the embodiment described with respect to Figs. 6A and 6B, a POSITA would understand that the intumescent material could be “attached to the top surface” of the ceiling track with an “adhesive backing.” Ex. 1004, ¶¶0050, 0054; Ex. 1003, ¶122. The adhesive backing would facilitate engagement between the main ceiling track section and the gasket upper panel. Ex. 1003, ¶122. To the extent that this does not expressly disclose placing an adhesive on the upper panel of Pilz

I's L-shaped gasket sections, it would have been obvious to do so in view of Morgan as discussed *supra* (see p. 52). *Id.* Indeed, as Patent Owner conceded during prosecution, "it would have been an obvious design choice to use the adhesion configuration such as specified in these claims." Ex. 1002 at 55.

The figure below shows the location of the adhesive in the gasket of Pilz I in view of Morgan and Pilz II. Ex. 1003, ¶122.

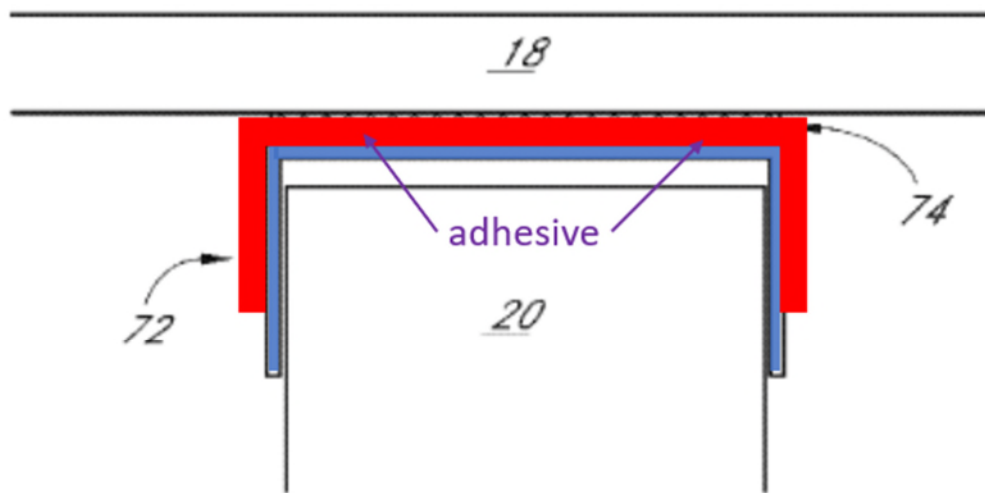


FIG. 8

Exhibit 1004, Fig. 8 (annotated).

f. [6e]

Pilz I discloses at least one connecting strap positioned above the main track section and attached to said first L-shaped gasket section and to said second L-shaped gasket section to limit spatial separation therebetween in the C-shaped gasket

embodiment as shown in the figure below. Ex. 1003, ¶123.

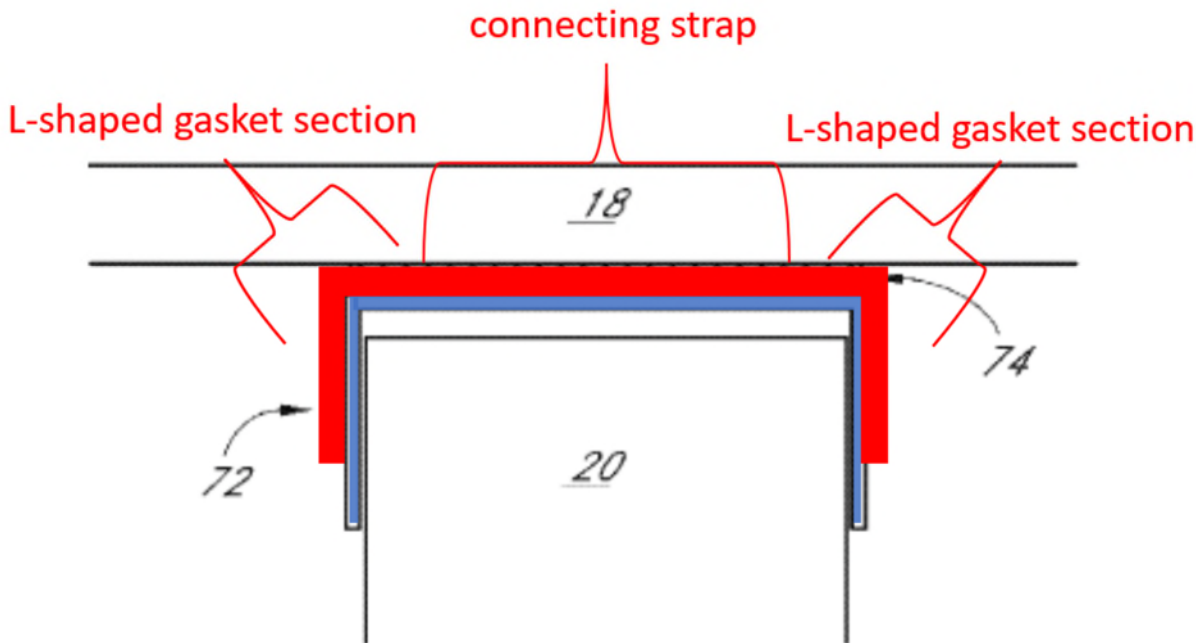


FIG. 8

Ex. 1004, Fig. 8 (annotated).

As shown in the figure, the portion of Pilz I's insulating gasket between the L-shaped gasket sections is a connecting strap as claimed in claim 6. Ex. 1003, ¶124. Because the connecting strap is part of the same integrated piece of intumescent material as the L-shaped gasket sections, the connecting strap is attached to the L-shaped gasket sections. *Id.* The strap will limit spatial separation between the L-shaped gasket sections. *Id.* In fact, most any strap that connects two objects will

limit spatial separation between those two objects (i.e., the space between the two objects is limited by the strap connecting those two objects). *Id.*

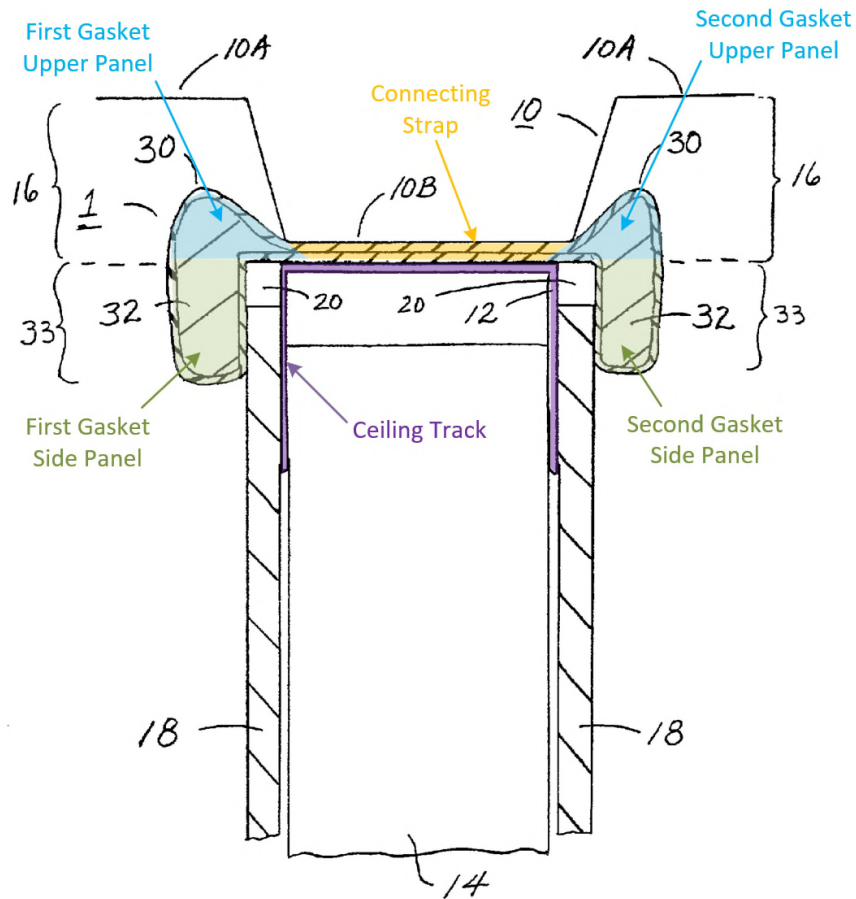
Patent Owner's positions concerning its own TTG confirm a POSITA's understanding that Pilz I's C-shaped embodiment includes the claimed "connecting strap." Ex. 1003, ¶125; Ex. 1012, ¶8. The annotated figure from Patent Owner's data sheet illustrates this with the connecting strap portion indicated by the green bracket and the two L-shaped gasket sections indicated by the light blue brackets. *Id.*



Ex. 1011 at 1 (excerpted and annotated).

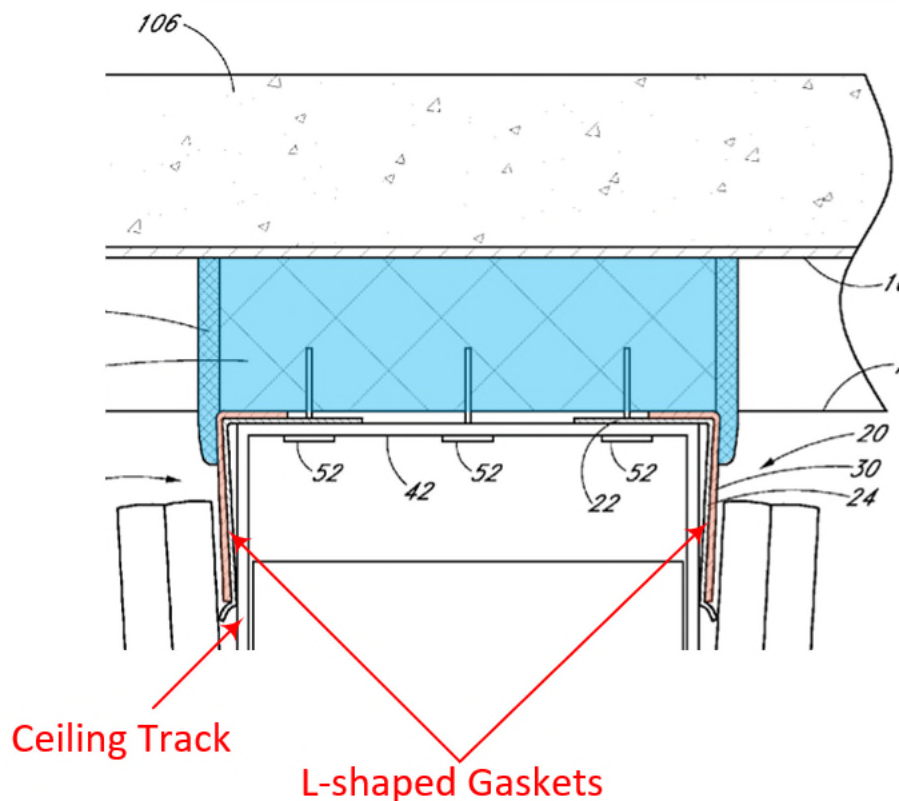
Morgan and Pilz II further disclose that it was known to strap two L-shaped gasket sections together to limit spatial separation therebetween. This can be seen

with reference to the annotated figure from Morgan below. Ex. 1003, ¶126.



Ex. 1005, Fig. 4 (annotated).

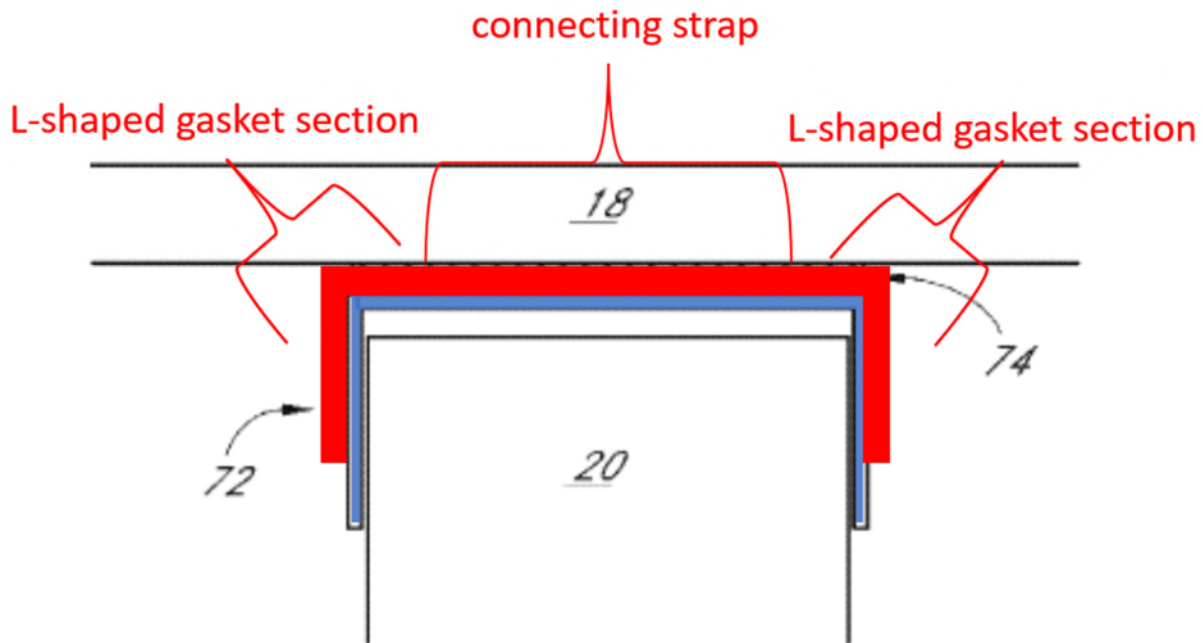
Pilz II similarly discloses the use of material to strap two L-shaped gasket sections together. Ex. 1003, ¶127.



The disclosures of Morgan and Pilz II serve to confirm a POSITA's understanding of Pilz I's fire strap 116 as a connecting strap attached to L-shaped gasket sections, which limits the spatial separation therebetween. Ex. 1003, ¶128.

g. [7]

Pilz I discloses this element. Ex. 1003, ¶129. Because the connecting strap is part of the same integrated piece of intumescent material as the L-shaped gasket sections, the connecting strap is attached to the upper panels of the L-shaped gasket sections as shown in the figure below.



Ex. 1004, Fig. 8 (annotated).

A POSITA's understanding of the above disclosure is consistent with Patent Owner's own assertion that its C-shaped TTG products embody claim 7 of the '232 patent. Ex. 1003, ¶130; Ex. 1010 at 1; Ex. 1013 at 20.

h. [8]

Pilz I in view of Morgan and Pilz II disclose this element. Ex. 1003, ¶131. Specifically, in the combined gasket, the upper panels of Pilz I's L-shaped gasket section are adhesively joined to the ceiling track while the side panels of the L-shaped gasket sections are free to move. *Id.* A POSITA would thus understand that

the gasket side panel is spatially disposed from the track side sections to be moveable relative to the side track sections and such movement would be responsive to movement between the wall configuration and the upper building structure above it (e.g., the ceiling). *Id.*

i. [9]

Pilz I discloses that the L-shaped gasket sections (including the side and upper panels) comprise an “intumescent material 74,” which a POSITA would understand to be a “firestopping insulating component.” Ex. 1004, ¶0054; Ex. 1003, ¶132.

j. [10]

Pilz I discloses that the L-shaped gasket sections (including the side and upper panels) comprise an “intumescent material.” Ex. 1004, ¶0054; Ex. 1003, ¶133.

k. [11]

Pilz I explains that “the area of contact between the intumescent material and the floor element 18 can inhibit air and *sound* from moving past the header track 10.” Ex. 1004, ¶0040; Ex. 1003, ¶134. Floor element 18 is shown in the below figure.

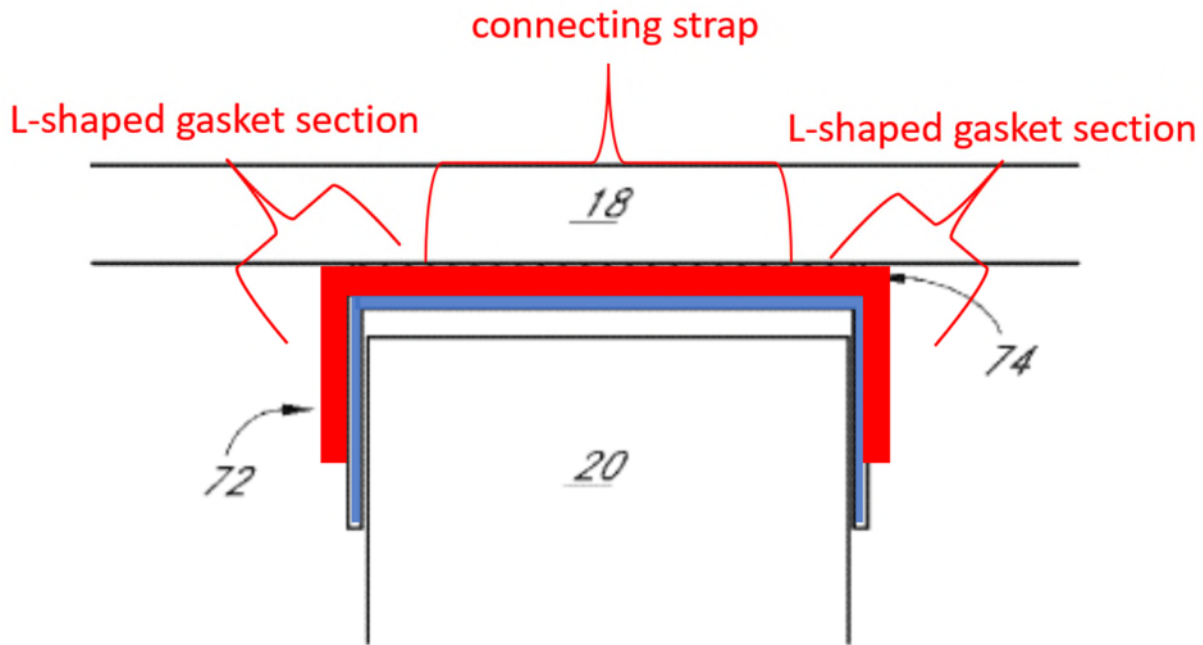


FIG. 8

Ex. 1004, Fig. 8 (annotated).

From this, a POSITA would understand that the insulating material of Pilz I would thus include an acoustical insulating component therewithin that blocks sound passing between ceiling 18 and the ceiling track 72. Ex. 1003, ¶135.

I. [12]

Pilz I discloses that the L-shaped gasket upper and side panels for each L-shaped gasket are “integrally formed.” Ex. 1003, ¶136. In the C-shaped embodiment of Pilz I, the intumescent gasket consists of a single piece of intumescent material. Ex. 1004, ¶0054; Ex. 1003, ¶136.

C. Secondary Considerations of Non-Obviousness

As to secondary considerations of non-obviousness, Patent Owner has asserted that commercial success and long-felt need apply. Ex. 1014 at 30. Patent Owner's attempt to argue these issues in the District Court Litigation has been entirely conclusory to date and has included no attempt to establish the requisite nexus. If Patent Owner asserts secondary considerations of non-obviousness in this proceeding, Petitioner intends to respond. Ex. 1003, ¶¶140-141.

D. PTAB Discretion Should Not Preclude Institution

1. Discretionary Denial under 35 U.S.C. § 325(d) is Not Warranted

Discretionary denial under the Board's §325(d) analysis in *Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH*, IPR2019-0146 (PTAB Feb. 13, 2020) is not warranted in this case. Petitioner submits that while Pilz I, Pilz II, and Morgan were all of record, Petitioner's arguments were not presented to or considered during prosecution. For example, the Examiner did not appear to consider Petitioner's argument that Pilz I discloses two different embodiments of the claimed connecting strap. That said, even if Petitioner's arguments were considered, Petitioner identifies herein material error that led to issuance. *See Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6, 8-9 (PTAB Feb. 13, 2020) (precedential) ("*Advanced Bionics*").

For simplicity, Petitioner assumes that Factor 1 is met because Pilz I, Pilz II, and Morgan were all of record during prosecution. Turning to Factor 2, the Examiner erred in at least two material ways. First, the Examiner erred in overlooking the C-shaped embodiment of Pilz I as well as the flat strap of Pilz I. *See Advanced Bionics* at 10 (“[I]f the record of the Office’s previous consideration of the art is not well developed or silent, then a petitioner may show the Office erred by overlooking something persuasive under factors (e) and (f).”); Ex. 1003, ¶137.

Second, the Examiner appears to have erred in applying a narrow claim construction—at Petitioner’s urging—that is inconsistent with Patent Owner’s own understanding of the plain meaning of the “connecting strap” as advocated by Patent Owner in the District Court Litigation. *See Advanced Bionics* at 8-9, fn. 9 (“Another example [of material error] may include an error of law, such as misconstruing a claim term, where the construction impacts patentability of the challenged claims.”). A discussion of each error follows.

a. The Examiner materially erred in overlooking Pilz I’s disclosure of two separate “connecting strap” embodiments.

During prosecution, the Examiner relied on the ’198 patent to reject each limitation of application claim 7. However, the Examiner found that the ’198 patent did not disclose the claimed “connecting strap” in application claim 8, which depended from claim 7. In so finding, the Examiner erred in: 1) overlooking Pilz I’s

disclosure of “fire *strap* 116” which is positioned above the ceiling track and attached to the two L-shaped gasket sections to limit spatial separation therebetween (Ground 1A), and 2) overlooking Pilz I’s C-shaped gasket embodiment of Fig. 8 (Ground 1B). Ex. 1003, ¶137.

As to the first error, Petitioner cites disclosure from Pilz I as disclosing a “connecting strap” that is *not* included in the ’198 patent. Thus, the disclosure of a connecting strap relied on by Petitioner was not addressed by the Examiner in an office action.

Patent Owner’s own description of Pilz I in an IDS may have contributed to the Examiner’s error. During prosecution, Patent Owner submitted an unconventional information disclosure statement which cited forty-one references in an eighty-eight page written report almost three times as long as the application specification. Ex. 1002 at 63-151. Patent Owner represented that the written report identified the “closest prior art of which the applicant is aware.” *Id.* at 61. Patent Owner then characterized the references and attempted to distinguish them from the preferred embodiments of the ’232 patent.

Patent Owner cited a patent that issued from the Pilz I publication (U.S. Patent No. 8,087,205) and argued:

The ’205 patent discloses a fire retardant wall system including a plurality of vertical wall studs and a track for receiving these wall studs

and connecting to a deck. The track includes a web with at least one flange and a side edge of the web defining a recess. The flange extends from the recess of the web and has a free end positioned opposite from the web. The track also includes at least one surface for accepting a layer of firestopping material thereon. The system further includes a layer of fire retardant material attached along this surface and at least one piece of wallboard supported by the wall studs such that the wallboard covers a portion of at least one of the flanges. An elongated protrusion is included that extends lengthwise along the flange and is positioned between the layer of fire retardant material and the free end of the flange. With this construction the wallboard overlaps the elongate protrusion such that it inhibits air flow between the wallboard and the track. The layer of firestopping material is positioned on the track such that it can seal any gaps present between the track and the deck responsive to intumescent expansion thereof when exposed to elevated temperatures.

Ex. 1002 at 215-216.

This description fails to acknowledge the fact that Pilz I discloses L-shaped gasket sections. It also fails to address the fire/flat “*strap* 116.” Notably, as to thirty (30) of the forty-one (41) references identified on Patent Owner’s narrative IDS, Patent Owner acknowledged that they were “certainly pertinent to the subject matter of the present invention.” Ex. 1002 at 65, 72, 77, 80, 84, 91, 100, 108, 114, 120, 124, 130, 137, 144, 149, 159, 166, 171, 174, 178, 185, 194, 202, 208, 214, 218, 224,

231, 238, 243. Patent Owner did not provide the same acknowledgement as to Pilz I, leaving the Examiner with the *erroneous* impression that Pilz I was not particularly pertinent. In reality, Pilz I discloses every feature of application claims 7 and 8 (collectively now issued claim 6) with the exception of the precise location of the adhesive layer, which the Examiner found to be an obvious design choice (again, a finding which Patent Owner did not challenge). Ex. 1002 at 55 (“[I]t would have been an obvious design choice to use the adhesion configuration such as specified in these claims.”); Ex. 1003, ¶33.

In overlooking the “fire strap 116,” the Examiner materially erred. Ex. 1003, ¶137. The only basis for allowance of issued claim 6 was the prior art’s alleged failure to disclose the claimed “connecting strap.” *Id.*, ¶138. Yet Pilz I discloses this exact feature. Had the Examiner identified this fact, claim 6 would not have issued in the form it did. *Id.*

The Examiner also made a material error in overlooking Pilz I’s disclosure of a C-shaped gasket embodiment. *Id.*, ¶137. The Examiner cited the ’198 patent in the sole office action issued during prosecution. Figs. 1-9 of the ’198 patent are also included in Pilz I, which is a continuation-in-part of the ’198 patent. *See* Ex. 1004, Figs. 1-9; Ex. 1008, Figs. 1-9. The Examiner cited to Fig. 9 of the ’198 patent, which disclosed two L-shaped gasket sections—a fact Patent Owner conceded during prosecution. Ex. 1002 at 55-56. While the Examiner found that the ’198 patent did

not disclose a “connecting strap” as claimed, the Examiner overlooked Pilz I’s disclosure that the embodiment of Fig. 8 could form a C-shaped gasket that includes a connecting strap as discussed above. This embodiment was described but not included in a figure, which may explain why the Examiner overlooked it. This error was material because had the Examiner identified the connecting strap of Pilz I’s C-shaped gasket embodiment, claim 6 would not have issued in the form it did. Ex. 1003, ¶137.

b. To the extent the Examiner limited the “connecting strap” limitation to its preferred embodiment, the Examiner materially erred.

The Examiner also erred to the extent the Examiner construed “connecting strap” as being limited to the preferred embodiment in which one or more connecting straps are attachable to the L-shaped gasket sections through slits defined therein. For thirty of the forty-one references, Patent Owner attempted to distinguish the ’232 patent’s connecting strap by pointing to unclaimed features of the connecting strap as it was recited in application claim 8. For example, as to the ’198 patent, Patent Owner argued:

Furthermore the present invention will also preferably include one or more individual connecting straps positioned above the main track section of the ceiling track and attachable to the first L-shaped gasket section and to the L-shaped gasket section to limit spatial separation therebetween. Furthermore, the connecting strap will preferably be

attached with respect to the first gasket upper panel of the first L-shaped gasket section and also be attached with respect to the second gasket upper panel of the second L-shaped section extending through slits defined therein.

Ex. 1003, ¶¶114-115.

Patent Owner repeated this same characterization in attempting to distinguish *thirty-one* other references. Ex. 1002 at 66, 73, 78, 81, 85, 92, 101, 108, 115, 121, 125, 131, 138, 144, 149, 160, 167, 172, 175, 179, 186, 195, 202, 209, 215, 219, 225, 232, 238, 243, 305. Patent Owner's repeated characterization of its connecting strap throughout its narrative IDS provided the Examiner with the legally incorrect impression that the connecting strap of application claim 8 was limited to the preferred embodiment of the connecting strap disclosed in the '232 patent, which includes a "connecting strap" extending through "slits" in the L-shaped gasket sections. Ex. 1001 at 10:49-52. However, Patent Owner's positions in the District Court Litigation reveal that Patent Owner in fact believes that the "connecting strap" limitation recited in claim 6 (which was originally recited in application claim 8) was far broader. Ex. 1009 at 7.¹⁶

¹⁶ Herein, Petitioner applies Patent Owner's "no construction necessary" position. Petitioner had originally advocated for a narrower construction, but to simplify

In apparently applying a narrow construction of “connecting strap,” the Examiner materially erred in finding that the prior art did not disclose the “connecting strap” claimed in issued claim 6 (application claim 8). Had the Examiner applied the plain meaning construction adopted by Patent Owner in the District Court Litigation, claim 6 would not have issued in the form it did. Ex. 1003, ¶139.

2. Denial under the *Fintiv* Factors is not warranted.

Petitioner submits herewith a *Sotera* stipulation in which it stipulates that if the Board institutes IPR in this proceeding, Petitioner will not raise any invalidity grounds in the District Court Litigation that were raised or reasonably could have been raised in this *inter partes* review (i.e., any ground that could be reasonably raised under §§102 or 103 on the basis of prior art patents or printed publications). Ex. 1015. Under the Director’s Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings With Parallel District Court Litigation dated June 21, 2022 (the “Director’s Procedure”), the Board “will not discretionarily deny institution in

issues in the District Court Litigation and before the Board, Petitioner will adopt Patent Owner’s “no construction necessary” position as to the portion of the “connecting strap” limitation reciting “at least one connecting strap positioned above the main track section of the ceiling track.”

view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB.” As such, the *Fintiv* factors do not provide the Board with discretion to decline to institute.

If Patent Owner were to argue—contrary to the Director’s Procedure—that the *Fintiv* factors support discretionary denial notwithstanding Petitioner’s *Sotera* stipulation, that argument would fail.

With respect to Factor 1, Petitioner intends to seek a stay of the District Court Litigation, and if the Board were to institute, Petitioner would expect to be successful in winning a stay in the District Court Litigation. *See, e.g., Found. Med., Inc. v. Guardant Health, Inc.*, No. CV 17-807-LPS-CJB, 2018 WL 950261, at *1 (D. Del. Feb. 15, 2018) (ordering a stay because “there is thus the real prospect that the parties and the Court could do a significant amount of pre-trial work, only to have the PTAB end up invalidating all asserted claims (or otherwise issuing decisions that render some of that work useless) soon thereafter.”).

Factor 2 also weighs against discretionary denial. As of March 31, 2022, the median time to trial in Delaware was 36.3 months in a civil case. Patent Owner filed its counterclaims alleging infringement on November 22, 2022. Using the median

time to trial, trial would begin at the beginning of December 2025.¹⁷ If the Board were to institute here, the Final Written Decision would be expected in May 2025 (assuming a filing date is accorded to the Petition within one month of filing). Thus, the Board has ample time to issue its final written decision before trial is set to begin.

Factor 3 weighs against discretionary denial or is at least neutral. While the parties have invested substantial time into the District Court Litigation, the vast majority of fact discovery remains to be taken. By the time of institution, the Court is scheduled to hold a *Markman* hearing on April 24, 2024 (although Petitioner intends to seek a stay prior to then).

Factor 4 weighs in favor of discretionary denial because there is substantial overlap among the prior art raised in this Petition and the prior art Petitioner raises in District Court Litigation.

Factor 5 weighs against discretionary denial because Petitioner and Patent Owner are the same parties that have appeared in the District Court Litigation. As such, estoppel will apply to the Petition by statute (in addition to the estoppel to which Petitioner has stipulated in its *Sotera* stipulation).

Finally, Petitioner respectfully submits the Petition presents compelling merits. Petitioner's obviousness case is straightforward and well supported by

¹⁷ In the District Court Litigation, trial is currently set to begin on October 20, 2025.

Professor Puchovsky. During prosecution, Patent Owner conceded that each element of issued claim 6 was present in or obvious in view of the prior art with the exception of the claimed “connecting strap.” The art on which Petitioner relies here plainly discloses a connecting strap, providing compelling merits of unpatentability.

V. CONCLUSION AND MANDATORY NOTICES

The Challenged Claims are unpatentable in view of Pilz I, Morgan, and Pilz II, and institution is warranted and respectfully requested.

A. Real Party-in-Interest

Hilti Aktiengesellschaft is the real party-in-interest.

B. Related Matters

The '232 patent is currently the subject of a district court litigation: *Hilti Aktiengesellschaft v. Specified Technologies Inc.*, No. 1:22-cv-01248-CJB (D. Del.).

C. Lead and Back-Up Counsel

Lead Counsel	Backup Counsel
Michael A. Dorfman (Lead Counsel) Reg. No. 46,669 GARDELLA GRACE P.A. 2502 North Clark Street, Suite 222 Chicago, IL 60614 Phone: 773-755-4942 Fax: 703-740-4541 mdorfman@gardellagrace.com Mailing address for all PTAB correspondence:	Natalie J. Grace (Back-up Counsel) Reg. No. 65,803 GARDELLA GRACE P.A. 80 M Street SE, 1st Floor Washington, DC 20003 Phone: 703-740-4538 Fax: 703-740-4541 ngrace@gardellagrace.com

GARDELLA GRACE P.A. 80 M Street SE, 1st Floor Washington, DC 20003	
--	--

D. Service Information

Pursuant to 37 C.F.R. § 42.10(b), Powers of Attorney accompany this Petition. Please address all correspondence to lead counsel. Petitioner consents to service of all documents via the following email addresses: mdorfman@gardellagrace.com, ngrace@gardellagrace.com, litigation@gardellagrace.com. To the extent physical documents will be served on Patent Owner, please address all correspondence to lead counsel and back-up counsel at the following mailing addresses:

GARDELLA GRACE P.A.
80 M Street SE, 1st Floor
Washington, D.C. 20003

E. Fees

The undersigned authorizes the PTO to charge the fee set forth in 37 C.F.R. § 42.15(a) for this Petition to Deposit Account No. 601484. The undersigned authorizes payment for additional fees that may be due with this petition to be charged to the above-referenced Deposit Account.

Dated: November 17, 2023

Respectfully submitted,

By: /s/ Michael A. Dorfman
Michael A. Dorfman (Lead Counsel)
USPTO Reg. No. 46,669
GARDELLA GRACE P.A.
2502 North Clark Street, Suite 222
Chicago, IL 60614
Phone: 773-755-4942
Fax: 703-740-4541
mdorfman@gardellagrace.com

Natalie J. Grace (Back-up Counsel)
Reg. No. 65,803
GARDELLA GRACE P.A.
80 M Street SE, 1st Floor
Washington, DC 20003
Phone: 703-740-4538
Fax: 703-740-4541
ngrace@gardellagrace.com

Attorneys for Petitioner
HILTI AKTIENGESELLSCHAFT

CERTIFICATION UNDER 37 CFR §42.24

Under the provisions of 37 C.F.R. §42.24(d), the undersigned hereby certifies that the word count for the foregoing Petition for *Inter Partes* Review totals 12,279 words, excluding a table of contents, Mandatory Notices under §42.8, a certificate of service, a certificate of word count, an exhibit list, and claim listing.

CERTIFICATE OF SERVICE

The undersigned certifies service pursuant to 37 C.F.R. §§42.6(e) and 42.105(b) on the Patent Owner by USPS Priority Mail Express of a copy of this Petition for *Inter Partes* Review and supporting materials at the correspondence address of record for the '232 patent to:

Fox Rothschild LLP
997 Lenox Drive
Lawrenceville, NJ 08648
UNITED STATES

Dated: November 17, 2023

By: /s/ Michael A. Dorfman
Name: Michael A. Dorfman
GARDELLA GRACE P.A.