Unified Patent Court
Einheitliches Patentgericht
Juridiction unifiée du brevet

The Hague - Local Division
**UPC-CFI-305/2026**

# ORDER
## of the Court of First Instance of the Unified Patent Court
## issued on 24 April 2026
## regarding: EP 2 964 450 (R.211 provisional measures)

Applicant:

1) Stratasys, Inc.
7665 Commence Way
Eden Prairie, MN 55344
United States of America,
"**Applicant**" or "**Stratasys**"

Represented by Peter Meyer, Stephanie Nottrott, Simon Steurer, Oscar Lamme, Xiao Liu (Simmons & Simmons LLP)

Defendant:

1) Bambulab GmbH
Hanauer Landstraße 291b
60314 Frankfurt am Main
Germany
"**Defendant**" or "**Bambulab**"

Represented by Carlos van Staveren, Tjibbe Douma, Andreas Obermeier, Frodo Ferro, Nathalie Steurrijs, Jascha Dikker (Bird & Bird LLP)

PATENT AT ISSUE:

EP2964450 – proprietor Stratasys Inc – "**EP450**" or the "**patent**"

PANEL AND DECIDING JUDGES

The Panel of the Local Division The Hague composed as follows:

| | |
|---|---|
| Presiding judge and judge-rapporteur ("JR") | **Margot Kokke** |
| Legally qualified judge | **Mojca Mlakar** |
| Legally qualified judge | **Robert van Peursem** |
| Technically qualified judge | **Koen Callewaert** |

This order is issued by the panel.

LANGUAGE OF THE PROCEEDINGS: English

Subject-matter of the proceedings:
Provisional measures

## I. BACKGROUND AND SUMMARY OF FACTS

***The parties and the products***

1. Applicant, Stratasys, is a US based technology company that develops and manufactures three-dimensional ("3D") printers and related technology. It operates worldwide.

2. Defendant is part of a company group with headquarters in the People's Republic of China, Shenzhen/Hong Kong. The BambuLab group also develops and manufactures 3D printers and is globally active in the marketing and distribution of 3D printers and 3D printing accessories.

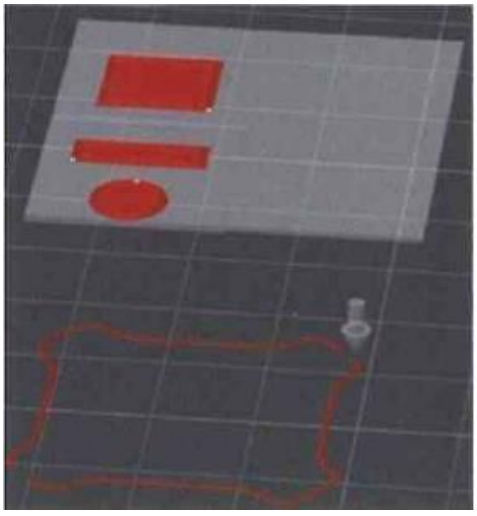
3. The parties are competitors in the global market of 3D printers, including in the European Union ("EU").

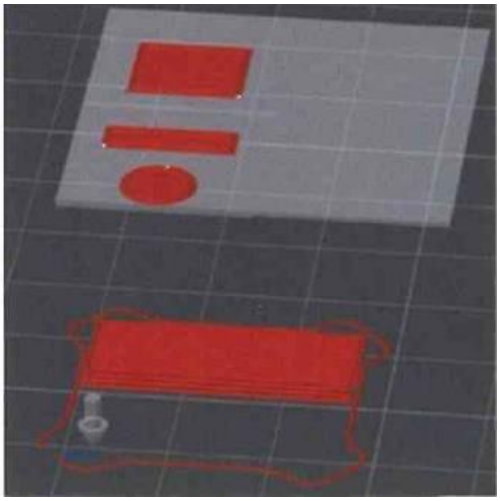
4. At a major 3D Printer trade fair Formnext in Frankfurt (taking place from 18-21 November 2025), BambuLab launched a new printer for 3D objects referred to as "BambuLab H2C" (hereafter also: "H2C") for the European market. The H2C had been announced in other territories, in particular for the United States, via YouTube clips earlier, in late August 2025. The H2C products, the allegedly infringing products, did not become available in Europe through the Defendant's online shop before the Formnext trade fair. Subsequently, representatives of the Applicant obtained a sample of the H2C for testing. An order was placed by external counsel on 26 November 2025 and was delivered to the address of the external counsel in Frankfurt on 16 December 2025. It was then forwarded to the Applicant in the USA for examination, where it arrived at Stratasys' premises on 18 December 2025. Examination of the H2C at the technical department of Stratasys started after Christmas with the preparation of the test set up. The actual printing test began on 29 December. The technical examination, including the printing test, was completed on 21 January 2026.

5. Regarding the testing process and the results thereof, Stratasys submitted a declaration of [redacted] Lead Engineer and Mechanical Engineering Supervisor at Stratasys, dated 26 January 2026 (exhibit SandS20). He declared inter alia the following regarding the operation of the H2C 3D printing operation (the pictures included below are also taken from the declaration, pages 9 – 18):

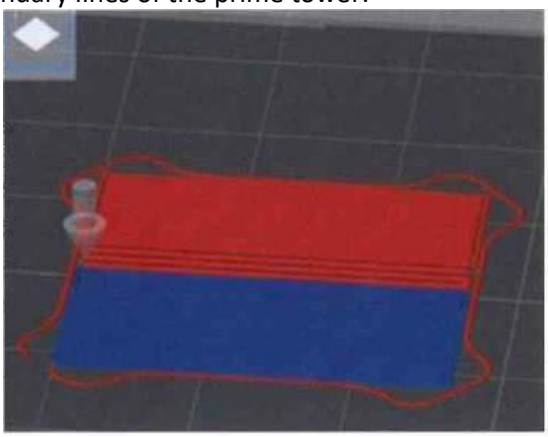
> 15. For printing with and configuration of the H2C, the H2C must be connected to a computer on which the Bambu Lab's software "Bambu Studio" has been installed. Bambu Studio is an open source software available to everyone (…).
> 16. In a specific test procedure, we tried to print the TestTowerV1 part in an upside down orientation, requiring support material for overhanging geometry. This part was setup to be comprised of both white PLA and red PLA materials.
> a. For this, filament spool A3 of the AMS was loaded with blue PETG to feed

into the installed right nozzle. Filament spool A2 of the AMS was loaded with white-coloured PLA to feed into nozzle 5 of the Vortek system. An extra filament spool with red PLA was mounted on the exterior of the printer to feed into the left nozzle. PLA was used to print the part structure, while PETG was used for printing of the support structure. PETG does not adhere to PLA which is why the support structure can easily be removed from the printed model. The Bambu Studio settings are shown below: (…)
(…)
d. To describe the printing procedure, I also refer to the corresponding Bambu Studio preview screenshots. In a first step, a thin line of red coloured PLA filament was extruded in the middle of the build chamber onto the build plate through the left nozzle of the toolhead to print the first layer of the main component: (…)
e. Subsequently, the toolhead moved to a position further below to extrude the boundary line of the prime tower (picture reproduced on the left, the court) from the left nozzle using red PLA to form the following shape:





f. Then, within the boundary line, the prime tower was printed by extruding red PLA from the left nozzle (picture depicted above on the right, the court).
g. Afterwards, the toolhead moved to the back of the build chamber and switched from the left to the right nozzle as indicated by the lights on the upper part of the toolhead. The left nozzle was retracted in that process. (…)
h. Subsequently, blue PETG lines were extruded from the right nozzle within the boundary lines of the prime tower:



i. Then, the toolhead moved to the upper position again to extrude the support structure of the first layer from the right nozzle using blue PETG.
(…)

***The patent***

6. Stratasys is the sole proprietor of the patent, EP450. EP450 was granted on 26 August 2020 for '*Additive manufacturing method for printing three-dimensional parts with purge towers'*, based on an international application of 24 February 2014 that was published as WO 2014/137637 on 12 September 2014, claiming priority of 8 March 2013. Opposition was filed against the grant, which opposition was withdrawn on 23 May 2022. The opposition proceedings were continued by the Opposition Division ("OD") of the EPO of its own motion. The OD maintained the patent in amended form. EP450 as amended (B2 version) was published on 8 May 2024.

7. The patent has fifteen method claims. The only independent claim 1, which will be discussed in detail below (in III.C), reads as follows:

> **1.** A method for printing a three-dimensional part (20, 70) with an additive manufacturing system (10), the method comprising:
>
> printing layers of the three-dimensional part (20, 70) and of a support structure (22, 72) for the three-dimensional part (20, 70) from multiple print heads (18) using an extrusion-based, additive manufacturing technique;
> switching the print heads (18) between standby modes and operating modes in-between the printing of the layers of the three-dimensional part (20, 70) and the support structure (22, 72);
> performing a purge operation for each print head (18) switched from the standby mode to the operating mode,
> the purge operations comprising printing at least one purge tower in a layer by layer manner, wherein the layers (24a, 74c) of the at least one purge tower (24, 74) are extruded directly from the print head (18) switched to the operating mode.

8. The description contains inter alia the following:

> **[0001]** The present disclosure relates to additive manufacturing systems for printing or otherwise building three-dimensional (3D) parts with layer-based, additive manufacturing techniques. In particular, the present disclosure relates to purge operation techniques for use in extrusion-based additive manufacturing systems.
> (…)
> DETAILED DESCRIPTION
> **[0014]** The present disclosure is directed to a method for printing 3D parts and support structures using an additive manufacturing system with the use of a purge tower (or multiple purge towers). As briefly mentioned above, in fabricating 3D parts by depositing layers of a part material, one or more support structures may be built underneath overhanging portions or in cavities of 3D parts under construction, which are not supported by the part material itself. The support structures are preferably printed from a support material that is removable from the associated 3D part after the printing operation is completed.
> **[0015]** To accomplish this, the additive manufacturing system may utilize multiple print heads or deposition lines, where a first print head or deposition line may be

used to print the 3D part, and a second material print head or deposition line may be used to print the support structure. For ease of discussion, the following disclosure is made with reference to separate print heads for printing 3D parts and support structures, referred to as a "part print head" and a "support print head". Examples of such part and support print heads include those disclosed in (…)

(…)

**[0018]** Typically, when the part print head is in its operating mode to print a layer of the 3D part, the support print head is its stand-by mode, and vice versa. For example,
after a 3D part layer is completed, the additive manufacturing system may then switch the print heads such that the support print head is brought to its operating
mode to print a layer of the support structure, and the part print head is brought to its stand-by mode. Then, after the support structure layer is completed, the additive manufacturing system may switch the print heads back such that the part print head is brought to its operating mode to print a layer of the support structure, and the
part print head is brought to its stand-by mode.

**[0019]** When each print head is brought to its operating mode, it undergoes a purge operation prior to printing the next layer. As discussed in Turley et al., U.S. Patent No. 7,744,364, a purge operation conventionally involves moving the given print head to a purge station, where it extrudes a strand of the part or support material into a
purge bucket, optionally followed by a tip wipe operation. Performing purge operations and creating blocks of waste material during layer-wise manufacturing is furthermore also known from WO2012085914A1.

**[0020]** This purge operation provides several desired functions. First, it frees any part or support material filament that may be adhered to the walls of the liquefier
assembly, and verifies that the print head can extrude the part or support material. It also removes any entrained gases and degraded materials in the print head, and
brings the print head to a known operating state for printing the subsequent layer, such as bringing a meniscus in the liquefier assembly to a substantially known position and raising the internal temperature of the liquefier assembly to a substantially steady-state condition. It also removes variable ooze that may hang from a nozzle of the liquefier assembly while the print head is idle or in its stand-by mode, and can account for variability of any voids in a tip pipe region of the nozzle. Additionally, for very low-volume-per-layer 3D parts, it may provide a minimum flow volume per layer to reduce the residence time-at-temperature for the part material.

**[0021]** However, the use of a purge station typically requires a sufficient amount of the part or support material to be extruded from the print head to have enough weight to fall away from the given print head and into a purge bucket. Furthermore, the purge station itself can take up a sizeable footprint in the additive manufacturing system, which may reduce the usable build volume for printing 3D parts. Moreover, the purge buckets periodically need to be emptied of the accumulate purged strands. This can inhibit the additive manufacturing system from functioning in a fully automated manner, such as in a printer farm.

**[0022]** As such, the method of the present disclosure is directed to a process in which the part and support print heads print a purge tower (or multiple purge towers)
during the purge operations. As discussed below, the purge tower allows each print head to achieve the above discussed desired functions of a purge operation without
requiring the use of a separate purge station. This can increase the useable build volume in the additive manufacturing system, as well as reducing the amount of part
and support materials consumed during the purge operations and allowing the additive manufacturing system to operate in a fully automated manner.

(…)

**[0044]** As shown in FIG. 1, and further shown in FIGS. 3A and 3B, purge tower 24 may be printed at any suitable free location on build substrate 44 (i.e., at any location in the x-y build plane not occupied by 3D part 20 or support structure 22). As discussed further below, each layer of purge tower 24 is printed by either the part material or by the support material depending on when print heads 18 switch between their operating modes and their standby modes and perform the purge operations.

(…)

**[0057]** The particular material used for each layer 24a depends on which print head 18 will be switched from its stand-by mode to its operating mode for the given layer of 3D part 20 and support structure 22. This timing typically depends on when the tool paths for the layers of 3D part 20 and support structure 22 require material switching. For instance, FIG. 6 illustrates a simplified layer arrangement for a 3D part 70 and support structure 72 that may be printed with system 10, where 3D part 70 is printed from part print head 18p with part layers 70a-70d, and support structure 72 is printed from support print head 18s with support layers 72a-72d (shown with speckle fill). In this example, print heads 18 may also print purge tower 74 from the part and support materials during the purge operations.

**[0058]** As shown, the first two printed layers 72a and 72b are for support structure 72. As such, prior to printing support layer 72a on build substrate 44, support print head 18s may be brought to its operating mode and undergo a purge operation by printing layer 74a of purge tower 74 from the support material, preferably following the same tool path 58 discussed above for purge tower 24 (shown in FIG. 5). Support print head 18s may then print support layer 72a from the support material following designated tool paths. When support layer 72a is completed, platen gantry 34 may lower platen 32 and build substrate 44 downward along the z-axis by a single layer increment.

**[0059]** Then, because support layer 72b is also printed entirely from the support material, support print head 18s may print support layer 72b following designated tool paths, and then print layer 74b of purge tower 74 from the support material. Alternatively, if desired, the tool path configuration may be arranged such that support print head 18s prints layer 74b prior to printing support layer 72b. Support layer 72b is necessary for maintaining purge tower 74 at the same height as the printed layers of 3D part 70 and support structure 72.

9. Figures 1, 3a and b and 6 of the patent are reproduced below, figures 3A and B in versions wherein the purge tower is shown in red, as annotated by defendant. The corresponding descriptions of those figures from [0013] of the patent are:

**[0013]** (…)

FIG. 1 is a top, front perspective view of an additive manufacturing system in use with consumable assemblies for printing 3D parts, support structures, and a purge tower of the present disclosure.

FIG. 3A is a perspective view of a printed 3D part, support structure, and purge tower on a build substrate.

FIG. 3B is a top view of the printed 3D part, support structure, and purge tower on the build substrate.

(…)

FIG. 6 is a side view of simplified layers of a printed 3D part, support structure, and purge tower on a build substrate.

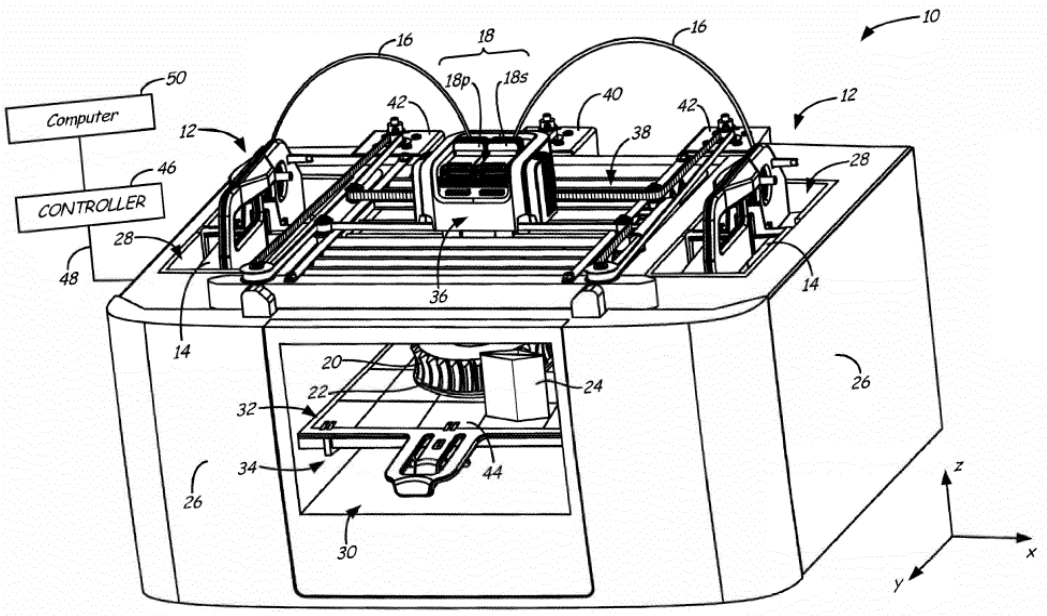



FIG. 1

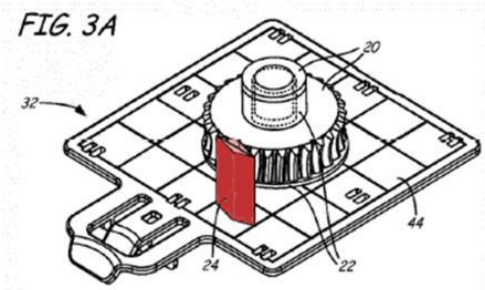



FIG. 3A

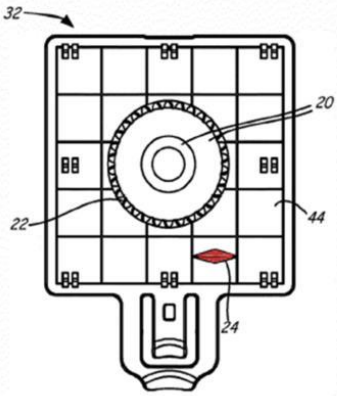



FIG. 3B

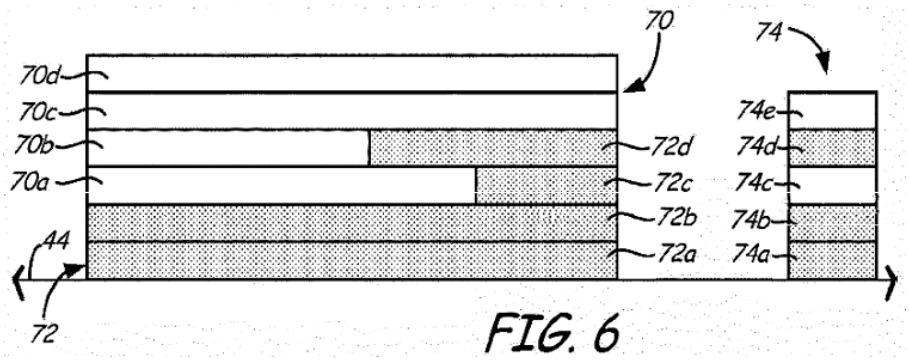



FIG. 6

## II. PROVISIONAL MEASURES SOUGHT, SUBMISSIONS OF THE PARTIES AND PROCEDURE

10. With a submission of 28 January 2026, Stratasys filed an application for provisional measures (the "Application"). In the Application, Stratasys mentioned that BambuLab initiated a revocation action aiming to invalidate the patent on 12 December 2025.

This action is pending at the CD Paris as UPC_CFI_ 01952-2025 (the Paris Action). Stratasys also pointed out that it had not received a readable version of the statement of claim in the Paris Action before 22 January 2026.

11. Asserting that Defendant indirectly infringes claims 1, 2, 4, 6 and 8 to 13 of the patent with its BambuLab H2C 3D printers as essential means to perform the claimed methods in the Contracting Member States France, Germany and The Netherlands, Stratasys requests, inter alia, that the Court, for the mentioned countries, grants an immediately enforceable injunction and corrective measures (including delivering up of the products and the provision of information), with penalties, ordering Defendant to pay the costs of the proceedings as well as an interim award of costs of EUR 75,900.

12. By order of 19 February 2026 the Court summoned the parties to an oral hearing and issued several case management instructions:
    1. *Parties are summoned to the oral hearing, to take place in The Hague on **1 April 2026 at 10:00 a.m.***
    2. *Defendant can file an Objection to the Application at or before **13 March 2026 10:00** a.m. under the conditions set out above at 3.*
    3. *Applicant can file a reply to any invalidity defences raised in the Objection on or before **25 March 2026** at 10:00 a.m.*

    The Defendant was instructed that (the material part of) its Objection pursuant to R. 209.1(a) RoP cannot contain more words than the material part of the Application. Applicant was instructed that it shall have the opportunity to file a limited reply to the Objection regarding (in)validity only, which must then be submitted by 25 March 2026 10:00 a.m. In any case the number of words used for this reply cannot be more than the material invalidity part in the Objection.

13. On 27 February Stratasys filed an unsolicited 55 page 'Application pursuant to R.9' in which it addressed the invalidity attacks raised by BambuLab in the Paris Action. Bambulab objected. Out of practical reasons, this submission was permitted as supplement to the Application. Bambulab was granted extra words and extra time for its Objection, which was filed on 18 March 2026.

14. Stratasys was permitted to file a response to any new validity arguments raised in the Objection, which it submitted on 25 March 2026. As this submission contained much more than was permitted, it was refused, as were Exhibits 37 to 42 submitted together with this submission. These documents are not part of the file. Applicant was ordered to replace it by a reply that does meet the requirements, which it submitted on 30 March 2026. For further procedural issues, reference is made to the case file.

15. The oral hearing ("OH") took place on 1 April 2026. Before the OH, parties were requested to provide the names of attendees. All attendees were (announced to be) present in open court with the exception of 'notulisten' ('minute takers'), who were to participate online (see 21 below).

## III. GROUNDS FOR THE ORDER

### III.A – SUMMARY AND POINTS AT ISSUE

16. For provisional measures, a sufficient degree of certainty pursuant to R. 211.2 RoP, in conjunction with Art. 62(4) UPCA (see also Art. 9(3) Directive 2004/48/EC) requires that the Court considers it on the balance of probabilities at least more likely than not that the Applicant is entitled to initiate proceedings and that the patent is infringed. A sufficient degree of certainty is lacking if the court considers it on the balance of probabilities to be more likely than not that the patent is not valid. The burden of presentation and proof for facts allegedly establishing the entitlement to initiate proceedings and the infringement or imminent infringement of the patent, as well as for all other circumstances allegedly supporting the Applicant's request, lies with the Applicant.[1]

17. Applying the above test, the Court finds that it is on the balance of probabilities (more) likely (than not) that the patent is not infringed. The Application will therefore be dismissed on this ground, making it unnecessary to address other defences such as urgency and invalidity in the context of these provisional measures proceedings.

18. For the Court's preliminary finding, claim construction is decisive, which will be addressed below in III.C, after discussing the patent. Infringement will be addressed in III.D and the outcome, including the costs, in III.E below. Jurisdiction and other preliminary issues will be discussed first, in III.B.

### III.B – JURISDICTION AND OTHER PRELIMINARY ISSUES

19. The application is admissible as the requirements set out in R. 206.2(b) to (e) RoP are complied with.

20. International jurisdiction and competence are not an issue in this case and were also not challenged. The Defendant resides within UPCA-territory, which, together with the subject matter of the case (alleged infringement of a European patent), makes the UPC competent to hear the Application pursuant to Art. 31 and Art. 32.1 (c) UPCA and Art. 4 Brussels Regulation[2]. The Local Division The Hague is internally competent to hear the case already because Bambulab appeared without objection thereto. BambuLab is furthermore asserted to infringe in, inter alia, the Netherlands.

21. At the start of the oral hearing, it was noted that several unannounced participants seemed to be present not in the court room, but via a video link with their cameras off. The link for online participation appeared to have been made available to several people whose participation had not been announced to the court. These participants did not make themselves known to the court upon request and were not known to

[1] Order CoA UPC, NanoString Technologies -v- 10x Genomics, UPC_CoA_335/2023, App_576355/2023 of 26 February 2024.
[2] Regulation (EU) No 1215/2012.

the parties. They were thus blocked from online participation. One employee of BambuLab's Chinese parent company, Mr [redacted] general counsel, did make himself known about half an hour after the start of the OH and was admitted as an online participant.

Against this background, it was also discussed whether the announced online participation of 'notulisten' ('minute takers') for Bambulab was permitted. Bambulab explained that the notes to be taken were similar to a transcription and for use in parallel proceedings. Stratasys objected to such participation as recordings are not allowed and third parties are not permitted to participate online but in open court only. The Court decided that in this case, online participation of the minute takers was not permitted, as the court had no control over the online participation and this seemed similar to a recording by a party, which is not permitted. Online participation was thus limited to [redacted]

After the OH in this case, it came to the attention of the panel that the court of appeal of the UPC ("CoA") clarified[3] that a party or its representative may prepare a private transcript of an oral hearing, based on an audio recording pursuant to R. 115 RoP, for restricted use as set out in the order. This panel finds that the situation in this case is quite different as it did not concern a transcription of the recordings but of the OH itself and to 'transcribers' who were not present at the premises of the court in person to listen to recordings as set out in R. 115 RoP.

### III.C – THE PATENT, BACKGROUND AND TEACHING

22. The patent concerns a method for extrusion-based additive printing of 3D parts, focusing on how purge operations are handled during such printing. In extrusion-based systems, a thermoplastic filament is heated in a print head and extruded through a nozzle, depositing material along predefined paths. A digital 3D model is first sliced into thin horizontal layers, after which the printer builds the object (also referred to as the part) layer by layer: for each layer, the print head moves in the x–y plane to deposit flowable part material, which solidifies and bonds to previously deposited layers, while incremental movement along the z-axis creates the full three-dimensional part/structure. Support structures, typically built to support overhanging portions of the 3D part, are often printed simultaneously using a different material to stabilize overhanging features. Support structures are preferably built from a support material that is easily removable from the 3D part after the printing operation is completed. See paragraphs [0001]-[0004] and [0014] of the patent.

23. During printing, the printer may switch frequently between the printing of part material and support material (and also possibly between the printing different part-materials). Multiple print heads or deposition lines can be used for the part and for the support materials. When a print head is not in use, it switches from an operating mode to a standby mode. Each time a print head transitions from a standby mode to an operating mode, it requires a purge operation. This purge operation serves to clean and stabilize the print head by removing degraded material, trapped gases, and inconsistencies from the nozzle, ensuring a reliable and continuous extrusion flow

[3] CoA order of 30 March 2026, UPC_CoA_12/2026 (Amazon/InterDigital).

before printing resumes. Traditionally, this purging is performed at a separate purge station, where the material is extruded and discarded. This station needs to be emptied when it is full. See inter alia [0015] - [0021] of EP450.

24. According to Stratasys, the objective technical problem solved by the patent is to improve the efficiency of multi-material (part and support) 3D printing in multi-head additive manufacturing by reducing the footprint and service requirements associated with purge operations, thereby enabling fully automated operations. This problem is solved by the method claimed, teaching a 3D printing method whereby a purge tower is used, which is printed directly on the build platform, alongside the 3D part and its support structures. Instead of discarding purged material, the system uses it to build this auxiliary structure layer by layer, in synchronization with the height of the part that is printed. Whenever a print head is activated, it first performs its purge by depositing material onto the purge tower, after which it proceeds to print the actual part or support layer. Defendant largely concurs, adding that the invention is directed at improving the purge operation in a layer-based additive manufacturing technique for 3D printing.

25. In claim 1 of the patent the process is claimed as follows, divided into features:

    1.1. A method for printing a three-dimensional part (20, 70) with an additive manufacturing system (10), the method comprising:

    1.2. printing layers of the three-dimensional part (20, 70)
        1.2.1. and of a support structure (22, 72) for the three-dimensional part (20, 70)
        1.2.2. from multiple print heads (18)
        1.2.3. using an extrusion-based, additive manufacturing technique;

    1.3. switching the print heads (18) between stand-by modes and operating modes in-between the printing of the layers of the three-dimensional part (20, 70) and the support structure (22, 72);

    1.4. performing a purge operation for each print head (18) switched from the standby mode to the operating mode,
        1.4.1. the purge operations comprising printing at least one purge tower in a layer by layer manner, wherein
        1.4.2. the layers (24a, 74c) of the at least one purge tower (24, 74) are extruded directly from the print head (18) switched to the operating mode.

26. The problem solved by the invention according to the description is thus associated with the disadvantages of the use of a purge station as, for example, explained in paragraph [0021] of the patent. The patent seems to suggest to the skilled person that the purge tower completely replaces the conventional purge station, allowing for printing in a fully automated manner (with no need to empty the purge station during printing) and the reduction of the volume taken up by the purge station. This also

seems to be the interpretation advocated by Stratasys in its written submissions and during prosecution in a letter to the examiner dated 17 August 2017:

> In contrast to D1, the instant claims are directed to the printing of a purge tower where the purge tower allows each print head to achieve the desired functions during a purge operation without requiring the use of a separate purge station. This can increase the useable build volume in the additive manufacturing system, as well as reducing the amount of part and support materials consumed during the purge operations and allowing the additive manufacturing system to operate in a fully automated manner (cf. §[032]-[034]).

27. However, during the oral hearing Stratasys asserted, also in relation to Defendant's argument that its H2C printers cannot infringe because they have a purge station, that a purge station may still be required in the 3D printer, for instance for single nozzle colour transition management which falls outside the scope of the claims. The invention teaches a process with a purge operation that takes place in a system with multiple printheads/nozzles when switching between different nozzles, i.e. when switching between different print heads. The claimed method thus does not apply to single nozzle colour change. The teaching could then be understood to provide a 3D printing process for a printing operation with only such print head/nozzle switching without the use of a purge station, reducing the volume of the purge station which might still be required for other printing operations. Whatever the case may be, this is not decisive here.

### III.C CLAIM CONSTRUCTION, SKILLED PERSON

28. The parties disagree on the interpretation of several features of the claim 1. The CoA set out the following principles regarding interpretation of a patent claim according to Art. 69 of the European Patent Convention ("EPC").[4] The patent claim is not only the starting point, but the decisive basis for determining the protective scope of a European patent. The interpretation of a patent claim does not depend solely on the strict, literal meaning of the wording used (…). Rather, the description and the drawings must always be used as explanatory aids for the interpretation of the patent claim and not only to resolve any ambiguities in the patent claim. However, this does not mean that the patent claim merely serves as a guideline and that its subject-matter also extends to what, after examination of the description and drawings, appears to be the subject-matter for which the patent proprietor seeks protection.
    The CoA also clarified (i) that these principles for interpreting a patent claim apply equally to the assessment of the infringement and to the validity of a European patent and (ii) that a patent must be interpreted from the point of view of the average person skilled in the art (the "skilled person").

29. The parties agree that the skilled person is an individual holding a university degree in mechanical engineering, computer engineering, chemical engineering, or materials

[4] Order CoA UPC, NanoString Technologies v 10x Genomics, UPC_CoA_335/2023 of 26 February 2024, as rectified by the order of 11 March 2024. See also G1/24, Enlarged Board of Appeal EPO.

science, possessing at least two years of experience in the field of 3D printing and working in a team of experts in mechanical engineering, computer engineering, chemical engineering and materials. The court has no reason to deviate.

Interpretation of feature 1.4.1

*the purge operations comprising printing at least one purge tower in a layer by layer manner, wherein*

30. While the parties are divided on the interpretation of several claim features, only the interpretation of feature 1.4.1 is decisive for this order, in particular the phrase '*in a layer by layer manner*'. This phrase was added during the prosecution phase of the patent. Bambulab argued that the skilled person will understand this to mean layers in height, so that each next layer is printed on top of the previous layer. Stratasys argued that this is an overly narrow interpretation which is not required by the claim. The skilled person, interpreting this phrase in the context of all features of claim 1, will understand that the only requirement is that for each printhead, when switching from the stand-by mode to the operating mode, a purge operation is performed (feature 1.4) whereby a layer of the purge tower is created. The claim does not prevent that these layers are next to each other horizontally, according to Stratasys.

31. The court agrees with BambuLab's interpretation. Stratasys interpretation does not consider the specific limiting requirement of feature 1.4.1, which requires that the purge tower is built '*in a layer by layer manner*'. The skilled person, interpreting the claim correctly in the context of the description and the drawings, and taking into account relevant common general knowledge, including the general meaning of 'layer', will likely come to the interpretation advanced by Bambulab. The patent teaches that each layer of the purge tower is printed by either the part material or by the support material depending on when print heads switch between their operating modes and their stand-by modes and perform the purge operations (par. [0044], highlight added):

port structure 22). As discussed further below, each layer of purge tower 24 is printed by either the part material or by the support material depending on when print heads 18 switch between their operating modes and their stand-by modes and perform the purge operations.

32. The general meaning of 'layer' is a flat strip underneath and/or on top of similar strips (horizontal layers) or next to/in between similar strips (vertical layers), whereby each new layer (partly or completely) covers the previous layer. The skilled person finds support that this interpretation also applies here in the figures and the description of the patent specification. The skilled person knows that for 3D printing, a 3D part is digitally sliced into multiple horizontal layers, where for each sliced layer a tool path is generated which provides instructions for the particular additive manufacturing system to print the given layer, as set out in [0002] in the background section of the description. There layer refers to the entire horizontal strip. Also, in Fig. 6 of EP450, depicted in 9. above, the skilled person finds confirmation that each layer of a purge

tower refers to the entire horizontal strip, and that such layer consists of one type of material only. As explained in paras. [0057] and [0058] of EP450, Fig. 6 illustrates a simplified layer arrangement for a 3D part 70 and support structure 72, where 3D part 70 with part layers 70a-70d is printed from part print head 18p, and support structure 72 with support layers 72a-72d (shown with speckle fill) is printed from support print head 18s. A purge tower 74 is shown on the right side of Fig. 6. This tower has layers 74a-74e which layers are printed by either the part material (layers 74c and 74e) during the purge operation of print head 18p or by the support material (layers 74a, 74b and 74d, shown with speckle fill) during the purge operation of print head 18s. Prior to printing support layer 72a on build substrate 44 (see also Fig. 3), the print head used for printing the support material 18s (see Fig. 1), is brought to its operating mode. Upon the switching to the operating mode (and in preparation for printing), it performs a purge operation, during which printhead 18s prints layer 74a of purge tower 74 consisting entirely of support material. When support layer 72a is completed, platen gantry 34 may lower platen 32 with build substrate 44 downward along the z-axis by a single layer increment in order to print the second support layer 72b (and the second purge tower layer 74b). After the support layers are printed, print heads 18 are switched so that support print head 18s is brought into stand-by mode and part print head 18p is brought into operating mode, as described in [0061]. Part print head 18p will then undergo a purge operation by printing layer 74c of purge tower 74 from the part material. This is also shown in Fig. 6. Part print head 18p may then print part layer 70a of the part material following designated tool paths. When part layer 70a is completed, platen gantry 34 may again lower platen 32 and build substrate 44 downward along the z-axis by a single layer increment to print the next layer.

33. It is apparent from Fig. 6 that, although part and support material may be printed on the same horizontal layer/coplanar (70 and 72), each horizontal layer of the purge tower 74 on the righthand side only consists of one type of material, support or part material. There is no teaching in the patent of purge tower layers consisting of both part and support material, also not in [0068] of the patent to which Stratasys referred during the OH. The mention there, in relation to Fig. 7 of EP450, that the layers of purge tower 24 may also ‘stagger and interlace’ between part and support materials in patterns that are based on the layer patterns of stack regions 76a-e, rather seems to refer to the order of the different purge-layers than to a plurality of materials in one layer.

34. In addition, the patent teaches that each layer of the purge tower is preferably printed along the same tool path (e.g. in [0047]). This also points to an interpretation wherein layer-by-layer means horizontal layers, with each subsequent layer being on top of the previous one as only then the same tool path can be followed for each purge operation.

35. The skilled person will therefore understand ‘layer-by-layer’ of feature 1.4.1 to require that with each purge operation a new horizontal layer of the purge tower is created. As a result, each layer of the purge tower consists of one type of material only, either part material or support material. A purge tower with horizontal layers consisting of

different materials next to each other in the same plain thus falls outside the scope of protection of the patent.

36. During prosecution, Stratasys gave a similar interpretation to this feature, where it stated inter alia in its letter to the Examiner of 17 August 2017, in response to objections raised by the Examiner:

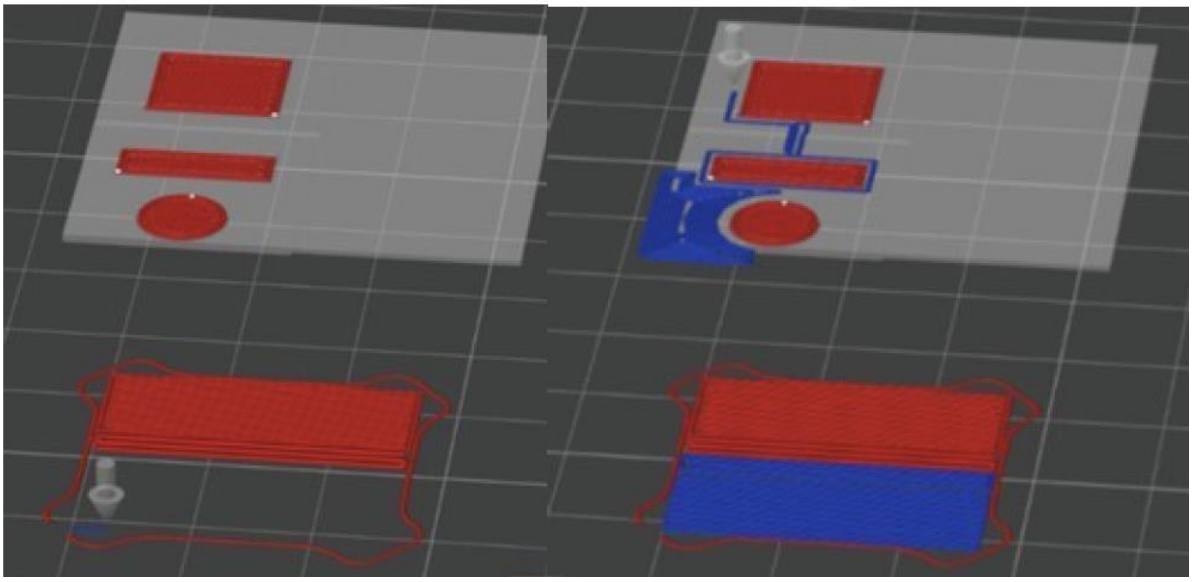
> In the instant claims, each layer of the purge tower is printed by either the part material or by the support material depending on when the print heads switch between their operating modes and their stand-by modes and perform the purge operations.

### III.D -INFRINGEMENT

37. Stratasys submits that the so-called prime tower built by the H2C 3D printer using the Bambu Studio software during the printing of a 3D part, qualifies as a purge tower according to the patent. This is supported by [redacted] declaration cited in 5. above.

38. BambuLab's defence that a prime tower and priming is not the same as a purge tower and purging, is not convincing. Priming seems to be (the last) part of purging.

39. However, the H2C prime/purge tower does not reproduce feature 1.4.1 as interpreted above. Pictures showing the prime tower created during 3D printing by a H2C printer are depicted once more below for easy reference (reproduced from p. 54 of the Application):



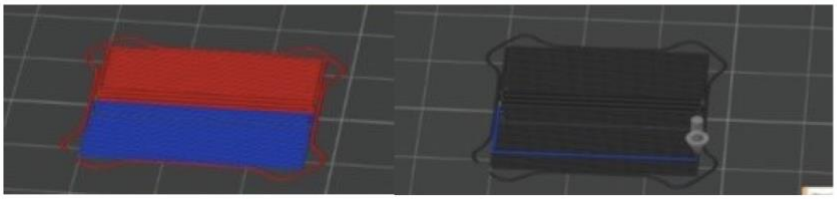
40. The prime/purge tower is shown on the bottom side with the 3D part printed above. In the picture on the left, the 'prime tower' as generated by the Bambu Studio software shows a boundary line of the tower printed in red.

    Bambulab asserts that the boundary line of the H2C prime tower has a technical function: to ensure/support the structural integrity of the prime tower, which is also why each layer of the boundary is printed using the same material (the layers stick

well together, and the stability of the tower improves). The boundary line is printed around the inner infill of the prime tower and adheres closely to this inner infill, to provide structural support for it (and thus for the prime tower as a whole).

According to BambuLab, such boundary line is printed from the material that the model uses most. This boundary line is thus made from the same material in each layer, independent whether a part or a support print head is switched to an operating mode. In the tower on the left, about half of the surface of the tower as outlined by the red boundary, is filled with red part material. In the right-side tower, the boundary encloses both red as well as blue support material at the same level. One layer thus consists of both part material and support material. In its Application, Stratasys also referred to the two-colour prime tower structure depicted above on the right as one layer, evidenced by the screenshot below taken from p. 55 of the Application:

During the printing procedure, different layers of the prime tower were printed. The first screenshot shows the first layer of the prime tower, the second screenshot shows the second layer of the prime tower with the first layer greyed out:



41. In view of the above, the allegedly infringing products in any case do not reproduce feature 1.4.1 when the H2C prints a prime tower as there is also no layer by layer printing of a purge tower whereby each layer consists of one type of material as required by this feature in claim 1 when correctly interpreted. For that reason, the Court provisionally finds it (more) likely (than not) that the patent is not infringed. Infringement by equivalence has not been argued. As this defence is successful, Bambulab's other defences need not be addressed.

### III.E OUTCOME AND COSTS

42. Thus, provisionally assuming that the application was filed without unreasonable delay (which provisionally seems to be the case given that Stratasys could not reasonably have been expected to know that the H2C would also be offered in Europe before the Formnext tradefair, see 4. above, after which it seems to have acted promptly in examining infringement and subsequently in the filing of the action), and provisionally assuming that the patent is valid, the requests are dismissed because (indirect) infringement cannot be established with the required certainty.

43. Art. 69 UPCA provides that reasonable and proportionate legal costs and other expenses incurred by the successful party shall, as a general rule, be borne by the unsuccessful party. This also applies to actions concerning the application for

provisional measures. R.211.1 (d) RoP provides that an interim award for costs can be awarded in such actions. In case of agreement on the total costs, the court sees no reason why the final costs cannot be established in the PI order (instead of in separate cost proceedings).

44. During the OH, the court urged the parties to reach an agreement on the costs, indicating that the ceiling was clear now that the value of the case was fixed at EUR 1,000,000 (during the OH). By email of 10 April 2026, the representative of Bambulab informed the court as follows on behalf of both parties:

> '(…) wish to inform the Court that they have agreed upon an amount of EUR 112,000 as an interim costs award in favor of the prevailing party.

45. The court will thus order Stratasys to pay to Bambulab as the successful party the agreed amount, which equals the ceiling established for a case with the present value. In view of the wording, the court understands this amount to include expenses (if any). The cost order is directly enforceable; R.118.8 RoP does not apply (according to the CoA[5]). The amount is to be paid within two weeks from the date on which Bambulab requests payment by indicating on which account payment must be made. The word 'interim' in the cost agreement is understood to refer to the situation that the order might be reversed in appeal, in which case the amount will need to be refunded.

## ORDER

Having heard the parties, the Court provisionally:

a) dismisses the Application;

b) sets the value of the case at EUR 1,000,000;

c) orders Stratasys to bear the legal costs and expenses incurred by Bambulab in the proceedings;

d) confirms that the total amount of costs and expenses incurred by Bambulab in this instance is EUR 112,000;

e) orders Stratasys to pay to Bambubab the sum of EUR 112.000 within two weeks from a detailed request thereto from Bambulab;

f) declares the order at e) directly enforceable.

[5] Order of 14 October 2025, UPC_CoA_699/2025, Kodak v Fujifilm.

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| Kokke | Margot Elsa Kokke<br>Digitally signed by Margot Elsa Kokke<br>Date: 2026.04.23 09:55:50 +02'00' |
| Van Peursem | Gerard Robert Bernard van Peursem<br>Digitaal ondertekend door Gerard Robert Bernard van Peursem<br>Datum: 2026.04.23 11:55:25 +02'00' |
| Mlakar | MOJCA MLAKAR<br>Digitalno podpisal MOJCA MLAKAR<br>Datum: 2026.04.23 12:16:09 +02'00' |
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| On behalf to the registry | Larissa Donata Hageman<br>Digitally signed by Larissa Donata Hageman<br>Date: 2026.04.23 12:52:20 +02'00' |

INFORMATION ABOUT APPEAL

An appeal to this order may be brought in accordance with Art. 73 (2) (a) UPCA and R. 220.1 (c) and 224.1(b) RoP within 15 calendar days of the service of this order. (R.211.6 RoP)