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**Datasheet for the decision  
of 3 December 2024**

**Case Number:** T 1785/22 - 3.2.01

**Application Number:** 15151873.5

**Publication Number:** 3047932

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B23K26/36, B23K26/40, B44C1/22,  
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**Language of the proceedings:** EN

**Title of invention:**  
Method of laser ablation for engraving of a surface with patch optimization, with corresponding software and machine tool

**Patent Proprietor:**  
Agie Charmilles New Technologies SA

**Opponent:**  
DMG MORI Ultrasonic Lasertec GmbH

**Headword:**

**Relevant legal provisions:**  
EPC Art. 52(1), 54, 56, 123(2), 123(3), 114(2)  
RPBA 2020 Art. 12(2), 12(4)

**Keyword:**

Novelty - main request (no)

Inventive step - auxiliary request (no)

Amendments - extension of the protection conferred (yes)

Late submissions - document admitted by first instance (yes)

Amendment to case - amendment within meaning of Art. 12(4) RPBA  
2020 (yes) - request - admitted (no) - detrimental to  
procedural economy (yes)

**Decisions cited:**

G 0002/88

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
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Case Number: T 1785/22 - 3.2.01

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.01**  
**of 3 December 2024**

**Appellant:** Agie Charmilles New Technologies SA  
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**Representative:** MERH-IP Matias Erny Reichl Hoffmann  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 25 May 2022  
revoking European patent No. 3047932 pursuant to  
Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chairman** G. Pricolo  
**Members:** V. Vinci  
A. Jimenez

## **Summary of Facts and Submissions**

- I. The appeal filed by the appellant (patent proprietor) is directed against the decision of the opposition division revoking the European patent No. EP 3 047 932.

In its decision the opposition division found that the ground for opposition pursuant to Article 100(a) in association with Article 54 EPC was prejudicial to the maintenance of the patent as granted. Furthermore, the opposition division held that the auxiliary requests 1, 2 and 5 did not comply with the requirements of Article 123(3) EPC and that subject-matter of independent claim 1 according to the auxiliary requests 3 and 4 did not involve an inventive step within the meaning of Article 52(1) and 56 EPC. Auxiliary request 3a filed in the course of the oral proceedings was not admitted. Novelty and inventive step were assessed in view of the following late filed non-patent literature:

E8: J. M. Kordt, "Konturnahes Laserstrahlstrukturieren für Kunststoffspritzgießwerkzeuge" Aachen, 2007.

submitted within the time limit set according to Rule 116(1) EPC. This evidence was admitted into the opposition proceedings by the opposition division pursuant to Article 114(2) EPC.

- II. Oral proceedings pursuant to Article 116 EPC were held before the Board on 3 December 2024 by videoconference.
- III. The appellant (patent proprietor) requested that the decision of the opposition division be set aside and that the patent be maintained as granted or, in the alternative, that the patent be maintained in amended

form according to one of the auxiliary requests 1 to 3, 3a and 4 to 7 filed with the statement of grounds of appeal.

The respondent (opponent) requested that the appeal of the appellant (patent proprietor) be dismissed and hence that the decision of the opposition division revoking the contested patent be confirmed.

IV. Independent claim 1 of the patent as granted reads as follows (labelling of the features according to the submissions of the parties):

(A) *"Laser ablation method for the engraving of a surface (7) of a two- or three-dimensional workpiece with a texture (16) by the laser beam (2) of a laser machining head (1), whereas*

(B) *the surface engraving is conducted in more than one layer (17.1, 17.2) which are machined consecutively, wherein*

(C) *at least one of the defined layers (17.1, 17.2) to be machined is subdivided into two or more patches (11, 19) intended to be machined one after another with the laser beam (2),*

*characterized in that*

(D) *the borderline (18) of at least one patch (11, 19) is determined in such a manner to follow along a path on that layer (17.1, 17.2, 17.x) which will not be affected by the laser beam (2) engraving of the laser machining head (1),*

(E) *preferably the borderline (18) of the patch (19)*

*forms a closed line."*

Independent claim 1 according to the auxiliary request 1 reads as follows:

*"Laser ablation method for the engraving of a surface (7) of a two or three dimensional workpiece with a texture (16) by the laser beam (2) of a laser machining head (1), whereat the surface engraving is conducted in more than one layer (17.1, 17.2) which are machined consecutively, wherein at least one of the defined layers (17.1, 17.2) to be machined is subdivided into two or more patches (11, 19) intended to be machined one after another with the laser beam (2), wherein the laser machining head (1) is repositioned for every patch (11, 19) to be machined, characterized in that each time a new layer is to be subdivided into patches (11, 19), the borderline (18) of at least one patch (11, 19) is determined in such a manner to follow, if possible, along a path on that layer (17.1, 17.2, 17.x) which will not be affected by the laser beam (2) engraving of the laser machining head (1), if not possible, to change from layer (17.1, 17.2) to layer (17.1, 17.2)."*

Independent claim 1 of the auxiliary request 2 corresponds to claim 1 of the auxiliary request 1, wherein the characterizing portion has been modified to read:

*"once every patch (11) of a layer (17.1) has been machined, the following layer (17.2, 17.x) to be machined is again subdivided into patches (11, 19), wherein each time a new layer is to be subdivided into patches (11, 19), the borderline (18) of at least one patch (11, 19) is determined in such a manner to*

*follow, if possible, along a path on that layer (17.1, 17.2, 17.x) which will not be affected by the laser beam (2) engraving of the laser machining head (1), if not possible, to change from layer (17.1, 17.2) to layer (17.1, 17.2)."*

Independent claim 1 of the auxiliary request 3 reads as follows:

*"Laser ablation method for the engraving of a surface (7) of a two or three dimensional workpiece with a texture (16) by the laser beam (2) of a laser machining head (1), whereat the surface engraving is conducted in more than one layer (17.1, 17.2) which are machined consecutively, wherein at least one of the defined layers (17.1, 17.2) to be machined is subdivided into two or more patches (11, 19) intended to be machined one after another with the laser beam (2), wherein the laser machining head (1) is repositioned for every patch (11, 19) to be machined, characterized in that the borderline (18) of at least one patch (11, 19) is determined in such a manner to follow along a path on that layer (17.1, 17.2, 17.x) which will not be affected by the laser beam (2) engraving of the laser machining head (1), preferably the borderline (18) of the patch (19) forms a closed line, wherein the at least one patch (11, 19) is machined such that a predefined amount  $l_m$  of layers (17.1, 17.2, 17.x) are consecutively machined by laser ablation on the workpiece surface (7) delimited by that patch (19) before the laser machining head (1) is repositioned to machine another patch (11, 19), wherein that predefined amount of layers  $l_m$  is lower than the total predetermined amount of layers  $l_{total}$  foreseen for the laser engraving of the texture on the surface (7) of the workpiece."*

Independent claim 1 of the auxiliary request 4 reads as follows:

*"Laser ablation method for the engraving of a surface (7) of a two or three dimensional workpiece with a texture (16) by the laser beam (2) of a laser machining head (1), whereat the surface engraving is conducted in more than one layer (17.1, 17.2) which are machined consecutively, wherein at least one of the defined layers (17.1, 17.2) to be machined is subdivided into two or more patches (11, 19) intended to be machined one after another with the laser beam (2), wherein the laser machining head (1) is repositioned for every patch (11, 19) to be machined, characterized in that the borderline (18) of at least one patch (11, 19) is determined in such a manner to follow along a path on that layer (17.1, 17.2, 17.x) which will not be affected by the laser beam (2) engraving of the laser machining head (1), preferably the borderline (18) of the patch (19) forms a closed line, wherein the laser machining head (1) engraves in each determined patch (19) having a borderline (18) following along a path on that layer (17.1, 17.2, 17.x) which will not be affected by the laser beam (2) consecutively two or more layers (17.1, 17.2, 17.x) on the workpiece surface (7) before the laser machining head (1) is repositioned to machine another patch (11, 19), wherein the patch (19) is machined such that a predefined amount  $l_m$  of layers (17.1, 17.2, 17.x) are consecutively machined by laser ablation on the workpiece surface (7) delimited by that patch (19), wherein that predefined amount of layers  $l_m$  is lower than the total predetermined amount of layers  $l_{total}$  foreseen for the laser engraving of the texture on the surface (7) of the workpiece."*



Independent claim 1 of the auxiliary request 5 reads as follows:

*"Laser ablation method for the engraving of a surface (7) of a two or three dimensional workpiece with a texture (16) by the laser beam (2) of a laser machining head (1), whereat the surface engraving is conducted in more than one layer (17.1, 17.2) which are machined consecutively, wherein at least one of the defined layers (17.1, 17.2) to be machined is subdivided into two or more patches (11, 19) intended to be machined one after another with the laser beam (2), wherein the laser machining head (1) is repositioned for every patch (11, 19) to be machined, characterized in that each time a new layer is to be subdivided into patches (11, 19), the borderline (18) of at least one patch (11, 19) is determined in such a manner to follow, if possible, along a path on that layer (17.1, 17.2, 17.x) which will not be affected by the laser beam (2) engraving of the laser machining head (1), wherein the patch (19) is machined such that a predefined amount  $l_m$  of layers (17.1, 17.2, 17.x) are consecutively machined by laser ablation on the workpiece surface (7) delimited by that patch (19) before the laser machining head (1) is repositioned to machine another patch (11, 19), the predefined amount of layers  $l_m$  being lower than the total predetermined amount of layers  $l_{total}$  foreseen for the laser engraving of the texture on the surface (7) of the workpiece, and, if not possible, to change from layer (17.1, 17.2) to layer (17.1, 17.2), wherein only one layer is machined."*

Independent claim 1 of the auxiliary request 6 reads as follows:

*"Laser ablation method for the engraving of a surface*

(7) of a two or three dimensional workpiece with a texture (16) by the laser beam (2) of a laser machining head (1), whereat the surface engraving is conducted in more than one layer (17.1, 17.2) which are machined consecutively, wherein at least one of the defined layers (17.1, 17.2) to be machined is subdivided into two or more patches (11, 19) intended to be machined one after another with the laser beam (2), wherein the laser machining head (1) is repositioned for every patch (11, 19) to be machined, characterized in that the borderline (18) of at least one patch (19) is determined in such a manner to follow along a path on that layer (17.1, 17.2, 17.x) which will not be affected by the laser beam (2) engraving of the laser machining head (1), and the borderlines of conventional patches (11) which are affected partially or entirely to the laser beam are determined to change from layer (17.1, 17.2) to layer (17.1, 17.2)."

Independent claim 1 of the auxiliary request 7 reads as follows:

"Laser ablation method for the engraving of a surface (7) of a two or three dimensional workpiece with a texture (16) by the laser beam (2) of a laser machining head (1), whereat the surface engraving is conducted in more than one layer (17.1, 17.2) which are machined consecutively, wherein at least one of the defined layers (17.1, 17.2) to be machined is subdivided into two or more patches (11, 19) intended to be machined one after another with the laser beam (2), wherein the laser machining head (1) is repositioned for every patch (11, 19) to be machined, characterized in that the borderline (18) of at least one patch (11, 19) is determined in such a manner to follow along a path on that layer (17.1, 17.2, 17.x) which will not be affected

*by the laser beam (2) engraving of the laser machining head (1), wherein once every patch (11) of the layer (17.1) has been machined, the following layer (17.2, 17.x) to be machined is again subdivided into new patches (11, 19), wherein the borderlines (18) of the new patches (19) are determined in such a manner to follow, if possible, along a path on that following layer (17.2, 17.x) which will not be affected by the laser beam (2) engraving of the laser machining head (1) on that following layer (17.2, 17.x) and, if not possible, to change from layer (17.1, 17.2) to layer (17.1, 17.2)."*

## Reasons for the Decision

### MAIN REQUEST - PATENT GRANTED

#### Discretionary decision to admit document E8

1. With their appeal, the appellant (patent proprietor) contested the discretionary decision of the opposition division to admit the late filed document E8 into the opposition proceedings.
- 1.1 The parties at the oral proceedings referred in this respect to the arguments provided in writing and did not make any further submission. The Board has thus no reason to deviate from its preliminary assessment of this issue as set out in the communication according to Article 15(1) RPBA dated 19 August 2024 which is herewith confirmed and reads as follow:
  - 1.1.1 The appellant (patent proprietor) put forward in writing that document E8 was submitted by the respondent (opponent) - without any justification for the late filing - on 8 October 2020, i.e. nearly one year after the end of the opposition period and also nearly five months after the first summons to oral proceedings scheduled on 8 December 2020 which had to be cancelled due to the COVID-19 pandemic. It was observed that if the oral proceedings had taken place at the originally scheduled date, neither the applicant nor the opposition division would have had enough time to assess the relevance of the technical content of this prior art document properly and prepare an appropriate reaction. The appellant (patent proprietor) further alleged that due to the insufficient explanations provided by the respondent (opponent), the opposition division had to assess the relevance of the

extensive disclosure of this prior art document with a considerable investigative effort. For these reasons, the appellant (patent proprietor) expressed the view that the late filed document E8 should have been dismissed by the opposition division in the interest of efficient opposition proceedings. Finally, the appellant (patent proprietor) contested the "*prima facie*" assessment by the opposition division that the technical content of E8 was more relevant compared with the prior art already in the proceedings which led to the decision to admit this document. The appellant (patent proprietor) thus requested to overturn the discretionary decision of the opposition division admitting the late filed document E8 into the opposition proceedings.

1.1.2 The arguments of the appellant (opponent) are not convincing:

The Board notes that submissions can be held inadmissible in the appeal proceedings only on the basis of Article 114(2) EPC and Articles 12(4), 12(6) and 13 RPBA. As a matter of fact, document E8 was admitted into the first instance proceedings and was addressed in the impugned decision. Hence, it forms part of the appeal proceedings according to Article 12(2) RPBA. The Board also considers that the opposition division exercised its discretion under Article 114(2) EPC by applying the correct criteria, namely the "*prima facie*" relevance, and that no indication can be found that the exercise of the discretion has been done in an illogic or unreasonable way. Furthermore, document E8 was filed within the time-limit set according to Rule 116(1) EPC with the last summons to oral proceedings as reaction to the preliminary opinion of the opposition division dated 21

April 2020. Therefore, although as a consequence of the unavoidable rescheduling of the oral proceedings to a later date, document E8 was filed *de facto* more than one year before the new date of the hearing. Furthermore, the opposition division had issued on 11 December 2020 a further preliminary opinion informing the parties that document E8 appeared *"highly relevant for the question of novelty of the claimed subject-matter and could challenge the maintenance of the patent if admitted into the procedure"*. The appellant (patent proprietor) had thus nearly one year to prepare their reaction to the highly likely admittance of this prior art document into the opposition proceedings. Therefore, the Board does not see how the discretionary decision of the opposition division admitting document E8 could be considered detrimental to the position of the appellant (patent proprietor) in the opposition proceedings.

- 1.1.3 In view of all the above, the Board does not see any reason to interfere with the discretionary decision of the department of the first instance admitting document E8 into the opposition proceedings under Article 114(2) EPC.

**Ground for opposition under Articles 100(a) and 54 EPC**

2. The ground for opposition pursuant to Article 100(a) EPC in association with Article 54 EPC is prejudicial to the maintenance of the patent as granted, as correctly found by the opposition division.
  - 2.1 With their appeal, the appellant (patent proprietor) contested the finding of the opposition division that document E8 was prejudicial to novelty of the subject-matter of claim 1 as granted. It was alleged that

features B and C of independent claim 1 were not directly and unambiguously disclosed in combination with feature D in this prior art document.

Interpretation of feature B and C of claim 1

2.2 In order to assess novelty with respect to E8 it is decisive to correctly construe claim 1 as granted, and in particular to determine the implication for the claimed method of features B and C in combination. Under discussion is whether the wording of these features encompasses only the so-called "*Strategy I*" according to which all patches of one layer are consecutively machined before moving on to the next layer, as alleged by the appellant (patent proprietor), or also the so-called "*Strategy II*", wherein all the layers underlying a specific patch are machined before moving to the next patch located on the first layer, as alleged by the respondent (opponent). These engraving strategies are illustrated in Figure 7-49 on page 108 of document E8.

2.2.1 The appellant (patent proprietor) pointed out that features B and C were linked in claim 1 by the word "*wherein*". Furthermore, the expression "*at least one of the defined layers*" at the beginning of feature C directly related to the "*more than one layer*" of feature B. The appellant (patent proprietor) thus concluded that feature C directly built on preceding feature B. In their view, this clear interconnection implied for the skilled reader that all the patches of one layer had to be machined before moving on to the next layer, i.e. that one layer was machined completely before starting with the machining of the next layer. The appellant (patent proprietor) concluded that claim 1 as granted only encompassed a layerwise engraving of

the workpiece surface wherein ablating of layers was prioritized on ablating patches. This approach corresponded thus to the "*Strategy I*" mentioned above which was the only one covered by claim 1. The appellant (patent proprietor) put also forward that this interpretation was not in contradiction with the description - as alleged by the respondent (opponent) - because from the whole patent disclosure it could be derived that the invention according to the contested patent started from a "*Strategy II*" approach and was implemented to the more advantageous "*Strategy I*" approach.

2.2.2 The narrow reading of feature B and C adopted by the appellant (patent proprietor) cannot convince:

The wording of feature B of claim 1 requires that engraving of the surface of the workpiece is carried out by machining the layers consecutively, i.e. one by one. However, the Board concurs with the respondent (opponent) that this wording does not specify to what extent a layer has to be machined before moving on to the next layer. Therefore, machining the entire layer as well as machining only a portion thereof before moving on to the next one are both encompassed by feature B of claim 1 which indeed does not mandatorily require that a layer has to be machined in its entirety before beginning with the machining of the next layer. In other words, a layer does not need to have been entirely machined to be considered a machined layer within the meaning of feature B. Furthermore, in both situations presented above, it is possible to machine the patches one after the other as required by feature C, namely either to consecutively machine all the patches located on the same layer or, alternatively, to consecutively machine a coat of superimposed patches



each one located on a different layer. These scenarios correspond to the "Strategy I" and "Strategy II" respectively which are illustrated in Figure 7-49 of page 108 of document E8. Therefore, contrary to the reading of claim 1 of the appellant (patent proprietor), these ablating strategies are both encompassed by the wording of features B and C of claim 1 as granted. The fact that a patchwise ablating of the workpiece according to "Strategy II" can also be read in claim 1 is clearly confirmed by the description, for example paragraph [0031] of the A1-publication which refers to the invention stating that *".... many or even all layers of that patch can be machined successively, without the need to machine in between other patches requiring the repositioning of the machine head."* This corresponds to a machining operation according to "Strategy II".

#### Novelty over E8

- 2.3 With their appeal, the appellant (patent proprietor) contested the view of the opposition division that the subject-matter of claim 1 as granted was directly and unambiguously derivable from document E8, in particular from the embodiments according to paragraph 7.4.2 disclosed on pages 107 and 108 with reference to Figures 7-46 to 7-49. The arguments of the appellant (patent proprietor) were based on their interpretation of claim 1 according to which features B and C resulted only in an engraving method according to "Strategy I" as depicted in the left part of Figure 7-49. It was argued that document E8 did not disclose a method according to "Strategy I" in combination with feature D of claim 1 which, at the most, was described only in association with a laser ablating engraving method carried out according to "Strategy II". Consequently E8

could not prejudice novelty of claim 1 as granted because it did not disclose features B and C in combination with feature D.

- 2.3.1 The arguments of the appellant (patent proprietor) are not convincing:

As discussed in section 2.2.2 above, features B and C of claim 1 have to be read broadly as to encompass both ablation strategies I and II represented in Figure 7-49 of E8. The Board - in accordance with the assessment of the opposition division - sees a direct and explicit disclosure of a laser ablation method carried out according to "*Strategy II*" in combination with feature D in the passage on page 108 of E8, lines 3 to 6 in combination with Figures 4-47 to 4-49.

- 2.4 It follows that claim 1 as granted lacks novelty over this prior art document, whereby the main request is not allowable.

#### **AUXILIARY REQUESTS 1, 2 and 5**

##### **Article 123(3) EPC**

3. The subject-matter of claim 1 of auxiliary requests 1, 2 and 5 does not comply with the requirements of Article 123(3) EPC as correctly found by the opposition division in the decision under appeal.

- 3.1 Compared to claim 1 as granted, the characterizing portion of claim 1 of the auxiliary request 1 has been modified to read (emphasis added):

*"each time a new layer is to be subdivided into patches (11,19), the borderline (18) of at least one patch (11,*

19) is determined in such a manner to follow, if possible, along a path on that layer (17.1, 17.2, 17.x) which will not be affected by the laser beam (2) engraving of the laser machining head (1), and if not possible, to change from layer (17.1,17.2) to layer (17.1,17.2)".

The claim thus contains an "if possible" and a "if not possible" branch.

3.2 With their appeal, the appellant (patent proprietor) contested the finding of the opposition division that the amendments introduced in claim 1 of the auxiliary request 1 did not comply with the requirements of Article 123(3) EPC.

3.2.1 The appellant (opponent) pointed out that according to the decision of the Enlarged Board of Appeal G2/88 the determination of the extent of protection conferred by the claims has to be carried out in accordance with Article 69(1) EPC and its protocol, this meaning in particular that "it is the totality of the claims before amendment in comparison with the totality of the claims after the proposed amendment that has to be considered". The appellant (patent proprietor) observed that claim 1 of the auxiliary request 1 built on claims 1, 3 and 4 as granted. The "if possible" branch of the amended claim 1 was integral part of claim 3 as granted and introduced an additional and limiting evaluation step regarding the possibility to carry out the determination of the borderline according to feature D of claim 1 as granted or not. They argued that the introduced "if not" branch was a mere clarification reflecting the possibility not specified in claim 3 as granted but well known for a person skilled in the art that a determination according to feature D could not

be carried out for any layer and any patch as also acknowledged by the respondent (opponent) in their reply. It was argued that - contrary to the understanding of the opposition division - claim 1 of the auxiliary request 1 did not encompass two alternative methods, i.e. one using a first approach ("*if possible*" branch) and a second using another approach ("*if not possible*" branch), but that both approaches were claimed. This was clear in view of the term "*and*" (and not "*or*") preceding the expression "*if not possible*". The appellant (patent proprietor) concluded that the amendments resulted in a limitation rather than in a shifting of the scope of the protection as defined by the claims as granted that, as such, complied with the requirements of Article 123(3) EPC.

3.2.2 The Board cannot follow the arguments of the appellant (patent proprietor):

As convincingly argued by the opposition division and the respondent (opponent) who at the oral proceedings referred in this respect to their written submissions, feature D of claim 1 as granted required a mandatory determination step. Claim 1 of the auxiliary request 1 now incorporates a case differentiation resulting from the expressions "*if possible*" and "*if not possible*" covering situations which were not contemplated by granted claim 1, namely situations in which no borderline of any patch can be determined in unaffected areas at all. This clearly results in a different method and hence in a shifting of the protection conferred by claim 1 as granted.

3.3 The same conclusions apply for the same reasons to the subject-matter of independent claim 1 of the auxiliary

requests 2 and 5 which contain in their characterizing portion the same issue raised against claim 1 of the auxiliary request 1 under Article 123(3) EPC. This is not contested by the appellant (patent proprietor).

- 3.4 Therefore, irrespective of the assessment of the other objections raised by the respondent (appellant), auxiliary requests 1, 2 and 5 are not allowable as correctly stated by the opposition division.

**AUXILIARY REQUESTS 3 and 4**

4. The subject-matter of independent claim 1 of both the auxiliary requests 3 and 4 does not involve an inventive step within the meaning of Articles 52(1) and 56 EPC as correctly found by the opposition division in the decision under appeal.

- 4.1 Independent claim 1 of the auxiliary request 3 recites in its characterizing portion additional features taken from dependent claim 5 as granted requiring that:

*"at least one patch (11,19) is machined such that a predefined amount  $l_m$  of layers (17.1,17.2,17.x) are consecutively machined by laser ablation on the workpiece surface (7) delimited by that patch (19) before the laser machining head (1) is repositioned to machine another patch (11, 19), wherein that predefined amount of layers  $l_m$  is lower than the total predetermined amount of layers  $l_{total}$  foreseen for the laser engraving of the texture on the surface (7) of the workpiece."*

- 4.2 Although this was contested by the respondent (opponent), the Board concurs with the opposition division and the appellant (patent proprietor) that E8

does not directly and unambiguously disclose to machine a predefined amount of layers  $l_m$  of at least one patch which is lower than the total predetermined amount of layers  $l_{total}$  foreseen for the laser engraving of the texture on the surface (7) of the workpiece. In fact according to this prior art document all the foreseen layers of the patches S1-S4 are machined (see Figure 7-49).

4.2.1 The appellant (patent proprietor) essentially argued that E8 nowhere taught or suggested to machine in at least one patch less layers than the total number of layer foreseen for the engraving operation. On the contrary, in view of the regular structures that according to this evidence had to be engraved, the skilled person assumed for example from Figure 7-49 that for every patch the same number of layers " $n=all$ " was machined. The appellant (patent proprietor) pointed out that the reader of E8 did not find any motivation in this document to modify this teaching in the sense of reducing the number of machined layers in at least one patch as required by claim 1 of the auxiliary request 3. In their view, the objection of lack of inventive step raised by the opposition division was based on a unallowable hindsight reasoning in knowledge of the invention.

4.2.2 The Board does not agree:

In accordance with the opposition division and the submissions of the respondent (opponent), the Board considers obvious for a person skilled in the art to machine a number of layers in certain patches which is lower than the total number of layers which are foreseen. This would be mandatory for example when textures of different depth have to be machined in

different portion of the workpiece surface. This requires different number of layers. Therefore, the additional features introduced in claim 1 of the auxiliary request 1 are considered an obvious measure for a person skilled in the art in view of common general knowledge that will be selected depending on the kind of machining required, i.e. depending on whether the depth of the engraving is the same in each patch or not.

4.3 Regarding the objection of lack of inventive step against the subject-matter of claim 1 of the auxiliary request 4 which is based on a literal combination of claims 1, 2 and 5 as granted, the appellant (patent proprietor) referred to the same arguments provided in respect of claim 1 of the auxiliary request 3.

4.3.1 The same reasoning and conclusions presented regarding claim 1 of the auxiliary request 3 analogously apply to the subject-matter of claim 1 of the auxiliary request 4 which contains the same limitation with respect to document E8.

4.4 Therefore, irrespective of the further objections raised by the respondent (opponent), auxiliary requests 3 and 4 are not allowable as correctly stated by the opposition division in the decision under appeal.

#### **AUXILIARY REQUEST 3a**

#### **Discretionary decision of the opposition division**

5. Auxiliary request 3a was submitted by the appellant (patent proprietor) in the course of the first instance oral proceedings. This request was not admitted by the opposition division in the exercise of the

discretionary power provided by Article 114(2) EPC.

5.1 The appellant (patent proprietor) requested to overturn the discretionary decision of the opposition division not to admit this late filed request. It was argued that the opposition division erroneously considered that claim 1 did not contain any further limitation suitable to overcome the objection of lack of inventive step raised against auxiliary requests 3 and 4 and that the amendments introduced new issues under Article 84 and 123(2) EPC.

5.1.1 The Board notes that a decision on the admissibility of a late filed request is taken by the first instance in exercise of its own discretion and that, according to established Case Law of the Boards of Appeal, the review of this decision by the Board should be generally restricted to the question whether the first instance has exercised its discretion power properly and according to the correct criteria. The Board takes the view that when deciding not to admit the auxiliary request 3a the opposition division has exercised its own discretion properly and according to the right criterion of the "*prima facie*" allowability which in this case was not considered to be fulfilled. The Board also considers reasonable the doubts expressed by the opposition division regarding whether, at least "*prima facie*", the limitations introduced in independent claim 1 from the description could overcome the objection of lack of inventive step raised against the auxiliary request 3 and 4. The same applies to the questions raised by the respondent (opponent) regarding compliance of amendments allegedly based on the description with the requirements of Article 123(2) EPC and to the question whether the expression "*coat*" introduced in claim 1 resulted "*prima facie*" in a lack



of clarity. In view of all above, the Board does not see any reason to overturn the discretionary decision of the opposition division not to admit auxiliary request 3a into the opposition proceedings. Furthermore, the Board does not see any circumstance of the appeal proceedings justifying the admittance of this auxiliary request under Article 12(6) RPBA, nor such a circumstance has been brought forward by the appellant (patent proprietor).

### **AUXILIARY REQUESTS 6 AND 7**

#### **Admissibility**

6. Auxiliary requests 6 and 7 have been submitted for the first time with the statement of the grounds of appeal of the appellant (patent proprietor). The respondent (opponent) requested not to admit these late filed requests into the appeal proceedings.
- 6.1 The submission of these requests for the first time with the statement of grounds of appeal represents an amendment of the appellant's (patent proprietor's) appeal case that may be admitted only at the discretion of the Board (Article 12(4) RPBA).
- 6.2 In the statement of the grounds of appeal the appellant (patent proprietor) explained that the submission of auxiliary requests 6 and 7 for the first time in the appeal proceedings was a timely appropriate reaction to the admittance of the late filed document E8 into the opposition proceedings. In this respect, it was essentially argued that the appellant (patent proprietor) did not have enough time to react to the admittance of this new evidence by filing suitable new auxiliary requests before the department of first

instance.

6.2.1 At the appeal oral proceedings the appellant (patent proprietor) argued for the first time that the submission of these auxiliary requests had been triggered by the objection under Article 123(3) raised for the first time during the the first instance oral proceedings. Therefore, the appeal proceedings was the first occasion to file new requests in reaction to this objection.

6.2.2 The Board does not agree:

As observed under section 1.2.2 above, document E8 was filed on 8 October 2020 as reaction to the first preliminary opinion of the opposition division dated 21 April 2020. With a second preliminary opinion dated 11 December 2020, the opposition division informed the parties that the late filed document E8, if admitted, could challenge novelty of the main and auxiliary requests on file. Since oral proceedings took place on 16 November 2021, i.e. nearly one year later, the Board considers that the appellant (patent proprietor) had enough time to study the technical content of document E8 and to file new auxiliary requests already during the first instance proceedings if they wished to do so. However, they decided to postpone the filing of the auxiliary requests 6 and 7 until the appeal. Therefore, the Board takes the view that the late filing of document E8 does not represent a convincing reason for the submission of the auxiliary requests 6 and 7 for the first time in the appeal proceedings.

6.2.3 Regarding the further argument that auxiliary requests 6 and 7 were a timely appropriate reaction to the objection under Article 123(3) EPC raised for the first

time at the opposition oral proceedings, the Board observes that the admittance and the consideration of this new justification is subjected to the very strict conditions of Article 13(2) RPBA. Irrespective of this, the Board cannot find in the statement of grounds of appeal of the appellant (patent proprietor) any substantiation as to why the amendments in claim 1 of auxiliary requests 6 and 7 overcome the objections raised under Article 123(3) EPC. In addition, the examination of the objections raised under Articles 84, 123(2), 54 and 56 EPC by the respondent (opponent) with their reply which have not been countered by the appellant (patent proprietor) in writing, would determine, should the auxiliary requests 6 and 7 be admitted, a fully new case and trigger an extensive new discussion of several potential issues at a very late stage of the appeal proceedings. This would be clearly detrimental to procedural economy.

6.2.4 Therefore, in the exercise of the discretion provided by Article 12(4) RPBA, the Board decided not to admit the auxiliary requests 6 and 7 for reasons of procedural economy.

7. Accordingly, in the absence of any allowable requests, the appeal is to be dismissed.  
The Board further notes that although on page 30 of the statement of grounds of appeal the appellant (patent proprietor) requested additionally to "*maintain the European patent based on the software claims according to the main request or - in the alternative - according to the software claims according to one of the Auxiliary requests*", claims corresponding to these requests were never filed in the appeal proceedings and anyway these requests were not maintained by the appellant (patent proprietor), who explicitly confirmed

at the end of the oral proceedings before the Board that they had not further requests other than those stated under point III above.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:



H. Jenney

G. Pricolo

Decision electronically authenticated