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**Datasheet for the decision  
of 29 November 2022**

**Case Number:** T 2034/20 - 3.2.04

**Application Number:** 13732572.6

**Publication Number:** 2872421

**IPC:** A47J31/36, B65D85/804

**Language of the proceedings:** EN

**Title of invention:**

BREWING SYSTEM WITH ADAPTABLE SEALING ELEMENT

**Patent Proprietor:**

Tuttoespresso S.r.l.

**Opponent:**

Patentwerk B.V.

**Headword:**

**Relevant legal provisions:**

EPC Art. 54(2), 56

RPBA 2020 Art. 13(2)

**Keyword:**

Novelty - (no)

Inventive step - (no)

Amendment after summons - exceptional circumstances (no)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**

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**Case Number: T 2034/20 - 3.2.04**

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.04**  
**of 29 November 2022**

**Appellant:** Tuttoespresso S.r.l.  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
28 October 2020 concerning maintenance of the  
European Patent No. 2872421 in amended form.**

**Composition of the Board:**

**Chairman** A. de Vries  
**Members:** G. Martin Gonzalez  
C. Heath

## **Summary of Facts and Submissions**

- I. The appeals were filed by the appellant (proprietor) and appellant (opponent) against the interlocutory decision of the opposition division finding that, on the basis of the auxiliary request 4, the patent in suit met the requirements of the EPC.

In their decision, the opposition division held that main and auxiliary requests 1 and 2 added subject-matter, while claim 1 of auxiliary request 3 (for which it held claimed priority was valid) was not new over an Art 54(3) document D1. Auxiliary request 4 however was held to be allowable as its claim 1 was novel over D1 to D6a, and involved an inventive step over D2 alone.

- II. The appellant patent proprietor requests that the decision under appeal be set aside and that the patent be maintained as granted, in the auxiliary on the basis of one of auxiliary requests 1 - 3 as before the opposition division, further in the auxiliary that the appeals be dismissed (auxiliary request 4), or that the patent be maintained on the basis of auxiliary request 4A, filed during the oral proceedings before the Board, or auxiliary request 5, filed on 2 December 2019 before the opposition division.

The appellant opponent requests that the decision under appeal be set aside and that the patent be revoked.

- III. In preparation for oral proceedings, the Board issued a communication setting out its provisional opinion on the relevant issues.

Oral proceedings were held before the Board on 29 November 2022.

IV. Independent claim 1 of the requests relevant to this appeal reads as follows:

(a) Main request (as granted).

"A system for preparing a beverage, said system including :

- a capsule (1) comprising a hollow body (6) including a lateral wall (2), an inlet wall (3), a flange-like rim (4) and a sealing protrusion (5) extending outwardly of said flange rim and spaced from said lateral wall (2),
- a brewing device (20) comprising a receptacle (21) movable with respect to a receiving plate (22) of the brewing device from an open position to a closed position to provide a closed chamber for housing at least part of the capsule hollow body, said receptacle (21) being provided with a pressing edge (10) having an external portion (10a) facing away from the lateral wall (2) of said capsule (1),

wherein said protrusion (5) of the capsule has at least one internal side (7) that is inclined by an internal angle  $\alpha$  within the range of 80 to 40 degrees with respect to a plane passing through the upper surface of said flange rim (4),

said system being characterized in that said angle  $\alpha$  and the spacing (L) from said lateral wall (2) of said protrusion (5) are arranged to have said protrusion (5) contact the external portion (10a) of the pressing edge (10) of said receptacle (21) at said side (7) of the protrusion, or at both said side (7) of the protrusion and a top (8) of the protrusion."

(b) First auxiliary request.

Claim 1 as in the main request with the following amendments (emphasis by the Board to indicate added text):

"...wherein said protrusion (5) of the capsule has at least one internal side (7) that is inclined by an internal angle  $\alpha$  within the range of 80 to 40 degrees with respect to a flange plane (P) passing through the upper surface of said flange rim (4), said system being characterized in that said angle  $\alpha$  and the spacing (L) from..."

(c) Second auxiliary request

Claim 1 as in the main request with the following amendments (emphasis by the Board to indicate added text):

"...wherein said protrusion (5) of the capsule has at least one internal side (7) that is inclined by an internal angle  $\alpha$  within the range of 80 to 40 degrees with respect to a plane (P) passing through the upper surface of said flange rim (4) outside the sealing protrusion (5), said system being characterized in that said angle  $\alpha$  and the spacing (L) from..."

(d) Third auxiliary request

Claim 1 as in the main request with the following amendments (emphasis by the Board to indicate added text):

"...wherein said protrusion (5) of the capsule has at least one internal side (7) that is inclined by an internal angle  $\alpha$  within the range of 80 to 40 degrees with respect to a flange plane (P) passing through the upper surface of said flange rim (4) outside the sealing protrusion (5),  
said system being characterized in that said angle  $\alpha$  and the spacing (L)..."

(e) Fourth auxiliary request (as upheld)

Claim 1 as in the third auxiliary request with the following amendments (emphasis by the Board to indicate added text):

"...wherein said protrusion (5) of the capsule has at least one internal side (7) that is inclined by an internal angle  $\alpha$  within the range of 80 to 40 degrees with respect to a flange plane (P) passing through the upper surface of said flange rim (4) outside the sealing protrusion (5),  
said system being characterized in that the distance (L) between top (8) of said protrusion (5) and said lateral wall (2) of the capsule is equal to or greater than the width (W) of the edge (10) of said receptacle and  
said angle  $\alpha$  and the spacing (L)..."

(f) Auxiliary request 4A

Claim 1 as in the fourth auxiliary request with the following amendments (emphasis by the Board to indicate modified text):

"A system for preparing a beverage, said system including :

- a capsule (1) comprising a hollow body (6) including a lateral wall (2), an inlet wall (3), a flange-like rim (4) and ~~a~~one sealing protrusion (5) extending outwardly of said flange rim and spaced from said lateral wall (2),..."

(g) Fifth auxiliary request

Claim 1 as in the fourth auxiliary request with the following amendments (emphasis by the Board to indicate added or deleted text):

"...wherein said protrusion (5) of the capsule has at least one internal side (7) that is inclined by an internal angle  $\alpha$  within the range of 80 to 40 degrees with respect to a flange plane (P) passing through the upper surface of said flange rim (4) outside the sealing protrusion (5),  
said system being characterized in that  
the distance (L) between top (8) of said protrusion (5) and said lateral wall (2) of the capsule is equal to or greater than the width (W) of the edge (10) of said receptacle ~~and,~~  
the distance (L1) between the lateral wall (2) of the capsule and the bottom end (7a) of the inclined side (7) of said protrusion (5) is comprised in the range 0.4 mm to 0.7 mm, and  
said angle  $\alpha$  and the spacing (L)..."



V. In the present decision, reference is made to the following document:

(D2) WO 2010/137954 A1

VI. The appellant proprietor's arguments can be summarised as follows:

Claim 1 of all requests is new and inventive over the cited prior art.

VII. The appellant respondent's arguments can be summarised as follows:

Document D2 anticipates the subject-matter of claim 1 of the main request and auxiliary requests 1-4. These requests lack novelty. Claim 1 of auxiliary request 5 does not involve an inventive step starting from D2 in combination with common general knowledge.

### **Reasons for the Decision**

1. The appeals are admissible.

2. Background

The invention is concerned with a capsule based beverage preparation system. The main concern is the seal formed between the movable receptacle 21 and the capsule flange 4 where receptacle edge 10 presses against a plate 22 with the flange between the two, figures 3 and 4. The aim of the invention is to provide a system capsule that can be used with different receptacles and closing mechanisms, para [0019]. To this end a protrusion on the capsule flange is spaced

from the capsule side wall, and the inner side of the protrusion is inclined at an angle  $\alpha$  (Fig. 4) such that the protrusion contacts an "external portion (10a) of the pressing edge (10) of the receptacle" at the inclined side of the protrusion, or at both the side of the protrusion and a top of the protrusion.

The option in which contact is at both the side and the top of the protrusion is understood by the Board to mean simultaneous contact at different portions of the protrusion around the flange in circumferential direction, as also argued by the appellant proprietor. This allows sealing also if capsule and receptacle are not precisely aligned, para [0026].

The protrusion's side angle  $\alpha$  (Fig. 4) is required to be within the range of 80 to 40 degrees. Within these values an effective seal-tight contact with the receptacle can be obtained without the need of high forces to compress the protrusion, paras [0031], [0032]. Lower required compression forces compensate the different travel paths of the receptacles in different brewing devices, para [0044].

3. Main request - Novelty.

3.1 The appellant opponent not only contests the opposition division's finding of novelty of claim 1 of auxiliary request 4 over D2, see section 15 of the impugned decision, but also in regard of broader claim 1 as granted, see its reply of 15 July 2021, section 15 on page 18, reiterating arguments presented in opposition, see the notice of opposition, section 7.1.2.

3.2 Document D2, see figures 3a and 3b, is also directed at a beverage preparation system using a capsule 2 in a receptacle or enclosing member 6 pressed against a plate via a flange rim 20 with a plurality of sealing protrusions or concentric ridges 28.i (figures 3a, 3b show four protrusions 28.1 to 28.4). Its concerns are similar to those of the present patent, namely to obtain a sealing engagement also in case of misalignment between the capsule and the receptacle, cf. p.2, ln 21-26. The geometry of the triangular ridges 28.i allows easy deformation by compression, cf. p.13, ln 4-9. Their shape and dimensions are disclosed in figures 3a, 3b in conjunction with p.14, ln 7-17, and give a value of the inclination angle of its sides of  $(\arctan (0.2/0.07)=) 71^\circ$  within the claimed range. At least one ridge may abut against the leading edge of the enclosing member 6, with the plurality of ridges allowing for misalignment of capsule and receptacle (enclosing member) p.2, ln 21-26. The plurality of ridges 28.i has a combined width  $W_C$  that is larger than the width  $W_{LE}$  of the leading edge 30 of the enclosing member 6 for tolerating misalignments, cf. paragraph bridging pages 12 and 13.

Naturally, the outermost of the ridges, 28.4 in figures 3a and 3b, is also meant to contact the leading edge 30 of the enclosing member 6 if sufficiently misaligned. In that case the capsule would not be concentrically positioned within the enclosing member 6, so that, seen from above, the circles defined by the inner and outer corners of the leading edge of the enclosing member are offset from and overlap the circle defined by the top of outer ridge 28.4. Along the circumference there will in that case be points at which, the top ridge circle intersects the inner or outer corner circles of the

leading edge or lies between them. At those points the top of ridge 28.4 contacts the lower face formed by the leading edge of the enclosing member 6 either at its outer or inner corners or at points in between. Where the outer corner circle lies within the top ridge circle and bearing in mind the compression and deformation of the ridge there must also be other points along the circumference where the outer corner of the bottom face of the enclosing member 6 contacts the inner side of the outer ridge 28.4. With a slightly smaller degree of misalignment the outer corner circle will lie just within the circle of the top of ridge 28.4, meaning that there will be points of contact between the outer corner and the inner side of the outer ridge 28.4. In the above, these points may not be the first points of contact during the closing movement. The contact at those points is however inevitable as a result of the compression of the deformable ridges.

According to the appellant proprietor the "external portion" of the pressing edge of the receptacle is to be understood as the area about the outer corner 10a of edge 10 of the receptacle 21, see figure 4 of the contested patent. In D2 this corresponds to the area about the outer edge of the leading edge 30 of the enclosing member 6. Any contact of the top or inner side of the ridge 28.4 with the leading edge 30 at or close to the outer corner is thus a contact in the sense of claim 1 as granted. As explained above, if the capsule is misaligned to the extent as to engage the outer ridge 28.4, depending on the degree of misalignment there will be different circumferential points where the outer corner (and points near it) will contact both the top and inner side of the outer ridge 28.4, or only its inner side. This corresponds to the

two types of contact described in the final feature of granted claim 1. Therefore, the two contact options of the last feature of the claim are anticipated by the arrangement of the outer ridge and receptacle of D2.

- 3.3 In this regard, the appellant proprietor argues that D2 only describes a pressing edge that "lands" on the ridge tops, also in case of misalignment. Therefore, there is no sealing contact with the ridge side as claimed. Indeed, the ridge 28.4 on its own would not be a "sealing protrusion" in the sense of the claim, as sealing is effected by all of the ridges acting together to form a labyrinthine seal.

The Board is not convinced by this argument. The contested claim does not qualify the nature of the contact, or the nature of the sealing, much less that a protrusion must seal about its entire circumference. In the Board's understanding, it is sufficient for one of the ridges of D2 to contribute to sealing for it to be a sealing protrusion in the sense of claim 1. Furthermore, as explained above, because of compression of the deformable ridge 28.4 upon pressing contact with the leading edge 30 there will inevitably be contact as claimed with the ridge's top and inner side when misalignment is such that the outer ridge 28.4 is engaged. Those points of contact will form part of the seal between the capsule and the enclosing member 6.

- 3.4 Nor is the Board convinced by the proprietor's argument that the claimed subject-matter is restricted to a single protrusion. While embodiments of the description have only one protrusion, this limitation is neither expressly stated in nor implicit from the claim wording. The expression of the claim "...a capsule (1) comprising... a sealing protrusion..." does

not exclude the presence of more protrusions. As variously stated in case law, legal certainty in drafting patent claims normally requires to interpret the word "comprise" by the broader meaning "include" or "comprehend", cf. CLBA (10th edition) II.A.6.2.

Nor does the expression "sealing protrusion" imply that that protrusion is solely responsible for sealing action. As stated above it is sufficient for the protrusion to contribute to sealing.

- 3.5 Finally, the appellant proprietor argues that the ridges of Figs. 3a and 3b of D2 do not have a side angle of  $71^\circ$ . An angle of  $71^\circ$  may be derivable for the 0.14 mm width ridge described on p.14, ln 7-17. However, this passage also gives a value of 0.7 mm width for the leading edge 30 of 0.7 mm. These values cannot be reconciled with the embodiment of figures 3a and 3b showing four ridges with a combined width shown as larger than the leading edge: applying the values of page 14 to figure 3a and 3b for the four ridges would amount to a combined width  $W_C$  of  $4 \times 0.14 \text{ mm} = 0.56 \text{ mm}$ , which is less than 0.7 mm. Hence, these different parts of D2 cannot be combined. Alternatively, these passages are contradictory and cannot be taken at face value.

The Board is not convinced. Firstly, the passage on page 14 is clearly part of the description of the embodiments shown in figures 3a and 3b, which starts on page 11, line 19, and ends on page 15, line 13. The passage starts off (page 14, line 7): "In these examples ...", which can only refer to the immediately preceding paragraphs describing aspects of the sealing action configuration shown in figures 3a and 3b. Furthermore, figures 3a and 3b are purely schematic in nature meant to illustrate the sealing action described

in greater detail from page 11, line 19, to page 15, line 13. The figures are meant to illustrate how misalignments are tolerated, cf. bridging paragraph of pages 12 and 13. Because they are schematic, they are not exact representations meant to convey information of dimensions or relationships, cf CLBA, 10th edition, 2022, I.C.4.6. Thus, the fact that the figures show four ridges does not mean that the sealing configuration must indeed have four ridges. Indeed, there is no indication in the accompanying description that the number four has any significance or is even meant to be illustrative. Indeed, though in the figures they have reference numbers 28.1 to 28.4, the text consistently refers to ridges as 28.i and does not mention any particular number.

Even if the number of ridges in figures 3a and 3b did have some significance, the description also allows for neighbouring ridges that need not be radially abutting, but may be spaced apart, cf. p14, ln 18-23, by a distance up to the maximum width  $W_R$  of the ridges 28.i. Alternatively, the same passage on page 14 mentions other dimensions for the ridges, 0.3 mm width and 0.3 height corresponding to an angle of  $63^\circ$  within the claimed range. In either case (and assuming that the number four in figures 3a and 3b does have significance), the values given could be reconciled with figures 3a and 3b.

3.6 The Board thus concludes that claim 1 lacks novelty over D2.

4. Auxiliary requests 1-3 - Novelty

The wording added to claim 1 of the auxiliary requests 1 - 3 is only meant to define the reference plane more

clearly, without however changing its orientation and thus the definition of the internal angle (or its range). Consequently, the claimed subject-matter corresponds to that of claim 1 of the main request and lacks novelty for the same reasons.

5. Auxiliary request 4 (upheld claims) - Novelty

Claim 1 adds the limitation that the distance between top of the protrusion and the lateral wall of the capsule is equal to or greater than the width of the pressing edge. In other words, the pressing edge fits in the space between the top of the protrusion and the capsule lateral wall. This is so for all embodiments described in connection with Figs. 3a and 3b of D2. As discussed above, they all have an arrangement with an outermost ridge beyond the outer corner of the pressing edge for tolerating misalignments.

The subject-matter of claim 1 of auxiliary request 4 is thus not new over D2, contrary to the decision's finding.

6. Auxiliary request 4a - Admission

6.1 This new auxiliary request was filed by the proprietor during the oral proceedings. It is therefore an amendment to the proprietor's case. Its admission is at the discretion of the Board, Art 13(2) RPBA. According to this rule, the Board should in principle not take such amendment into account unless there are exceptional circumstances which have been justified with cogent reasons.

6.2 The fact that the appellant proprietor for the first time during oral proceedings realised that the



contested claim could be interpreted as including additional protrusions, as in Figs. 3a and 3b of D2, is not an exceptional circumstance justifying amendment at this final stage. Nor is the fact that the opposition division did not consider D2 to take away novelty. The relevant objection of novelty based on Figs. 3a and 3b of D2, which obviously implies that the contested claim may encompass a plurality of protrusions, was part of the contested decision and has been pursued by the appellant opponent from the outset of the opposition and also in these appeal proceedings, cf. opponent's reply to the appeal of letter of 15 July 2021, section 15.

6.3 In the light of the above, the Board decided not to admit auxiliary request 4a into the proceedings, Art 13(2) RPBA.

7. Auxiliary request 5 - Inventive step

7.1 Claim 1 lacks an inventive step departing from D2 in combination with common general knowledge.

7.2 Compared to auxiliary request 4, claim 1 of this request is further limited to have a distance (L1) between the capsule lateral wall and the internal bottom end of the protrusion comprised in the range of 0.4 mm to 0.7 mm.

In the Board's view, these values are no more than the result of routine design choices that cannot contribute to inventive step for the claimed subject-matter.

7.3 The appellant proprietor refers to patent specification paragraph [0086] in respect of the effect achieved by the added feature. However, the range of 0.4 mm to 0.7

mm for L1 is merely described there as preferred, without attaching any technical significance to it. Paragraph [0088] also cited by the appellant proprietor, in combination with paragraph [0089] and figures 7A and 7B, describes the technical effect of having the distance L1 shorter than the pressing edge width W. However, this condition has not been included in the claim nor is any pressing edge width W value claimed. Since the technical effect is tied to the relationship between L1 and W but this relationship is not specified in the claim, it cannot be taken into account for assessing inventive step. The appellant proprietor cites further paragraphs [0026] and [0034] as evidence to associated effects that would support inventive step for the claimed range. However, neither paragraph mentions distance L1 nor is it somehow implicit from these passages that any effect is linked to this specific feature.

The description therefore does not appear to attach any technical significance to the specific range of 0.4 mm to 0.7 mm.

7.4 The appellant proprietor further argues that these values are chosen to fit or adapt their capsules to existing commercial machines.

In the Board's view, such an adaptation of D2's teaching would be entirely routine, as the skilled person in putting the teaching of D2 into practice would as a matter of course ensure that it is dimensioned to function with existing commercial machines. As noted, the chosen range of 0.4 mm to 0.7 mm does not appear to have any particular significance.

- 7.5 The appellant proprietor finally argues that the mention of an edge width of 0.7 mm on page 14 of D2, which would need to fit within the space between the outer ridge and the capsule wall, would prevent the skilled person from adopting L1 values as low as claimed, that is between 0.4 and 0.7 mm. However, it is clear to the reader that D2 mentions a value for the leading edge width only by way of example (the passage starts "In these examples...") and that they are in no way limited to those values. Therefore, the skilled person is not prevented from adapting the known capsule to machines with narrower pressing edges. Nor is there any indication in D2 that such other values might be inherently incompatible with its teaching.
- 7.6 The Board thus concludes that claim 1 of auxiliary request 5 does not involve an inventive step, Art 56 EPC.
8. The appellant proprietor fails in their appeal as the main request and auxiliary requests 1 to 3 are unallowable for lack of novelty. Furthermore, and contrary to the decision's finding, claim 1 of auxiliary request 4 as upheld also lacks novelty, so that the decision must be put aside. Auxiliary request 4A is not admitted and auxiliary request 5 lacks an inventive step. Thus, taking into consideration the amendments made by the appellant proprietor, the patent and the invention to which it relates do not meet the requirements of the Convention and the patent must be revoked pursuant to Article 101(3)(b) EPC.

**Order**

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

1.       **The decision under appeal is set aside.**
  
2.       **The patent is revoked.**

The Registrar:

The Chairman:



G. Magouliotis

A. de Vries

Decision electronically authenticated