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Datasheet for the decision of 2 August 2010

Case Number: T 0984/07 - 3.3.05

Application Number: 98909117.8

Publication Number: 0966320

IPC: B01F 5/06

Language of the proceedings: EN

Title of invention:
Homogenization valve

Patentee:
APV Homogenizer Group

Opponent:
AB Tetra Pak

Headword:
Homogenization/APV

Relevant legal provisions:
EPC Art. 123(2)

Relevant legal provisions (EPC 1973):
-

Keyword:
"Extension beyond the content of the application as filed (yes)"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0984/07 **-** 3.3.05

D E C I S I O N
of the Technical Board of Appeal 3.3.05
of 2 August 2010

Respondent: (Opponent)
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Decision under appeal:
Interlocutory decision of the Opposition Division of the European Patent Office posted 11 April 2007 concerning maintenance of European patent No. 0966320 in amended form.

Composition of the Board:

Chairman: G. Raths
Members: J.-M. Schwaller
H. Preglau

Summary of Facts and Submissions

I. The present appeal was lodged by the patentee against the interlocutory decision of the opposition division maintaining the patent in amended form on the basis of the second auxiliary request dated 23 January 2007.

II. The main request rejected by the interlocutory decision corresponds to the granted version of the patent. Its claim 1 reads as follows:

"*1. A homogenizer valve comprising flow restricting surfaces (156, 158) opposing each other on either side of a laterally extended valve gap (170), characterised by downstream terminations (188, 187) of the opposed surfaces being staggered, and said downstream terminations (188, 187) of the opposed surfaces are each angled by less than about 90° to respective planes defined by the opposed flow restricting surfaces (156, 158).*"

III. In the contested decision, claim 1 of the main request was rejected under Article 123(2) EPC because its subject-matter encompassed embodiments which were not disclosed in the application as filed, namely those with angles of less than 5° and those with angles to respective planes defined by the opposed flow restricting surfaces (156, 158) that may be different.

IV. With the grounds of appeal dated 13 August 2007, the appellant submitted a new auxiliary request II with an independent claim 1 reading as follows:

"*1. A homogenizer valve comprising flow restricting surfaces (156, 158) opposing each other on either side of a laterally extended valve gap (170), characterised by*

downstream terminations (188, 187) of the opposed surfaces being staggered, and said downstream terminations (188, 187) of the opposed surfaces are each sloping away from respective planes defined by the opposed flow restricting surfaces (156, 158) at an angle (β) from 5 to 90° wherein downstream terminations of the opposed surfaces are staggered by at least a height of the valve gap, but not more than approximately ten times the gap height."

V. On 31 December 2007, the respondent (also opponent) submitted its comments and objected in particular to the new auxiliary request II under Article 123(2) EPC.

VI. During the oral proceedings, which took place on 2 August 2010, the appellant filed a new auxiliary request IB replacing former auxiliary request I. Independent claim 1 of this request reads as follows:

"*1. A homogenizer valve comprising flow restricting surfaces (156, 158) opposing each other on either side of a laterally extended valve gap (170), characterised by*

downstream terminations (188, 187) of the opposed surfaces being staggered, and said downstream terminations (188, 187) of the opposed surfaces are each sloping away from respective planes defined by the opposed flow restricting surfaces (156, 158) at an angle (β) from 5 to 90°."

The respondent objected to this claim under Article 123(2) EPC.

VII. The appellant requested that the decision under appeal be set aside and that the patent be maintained as granted (main request), alternatively on the basis of the claims according to auxiliary request IB filed during oral proceedings or on the basis of the claims according to auxiliary request II filed on 13 August 2007.

The respondent requested that the appeal be dismissed.

Reasons for the Decision

1. *Main request - Amendments*

1.1 The respondent objected to claim 1 of this request under Article 123(2) EPC, arguing in particular that the feature "said downstream terminations (188, 187) of the opposed surfaces are each angled by less than about 90° to respective planes defined by the opposed flow restricting surfaces (156, 158)" had no basis in the application as filed.

1.2 The appellant argued that the above feature resulted from the combination of the two ranges of angles disclosed on the one hand in claim 1 of the application as filed, which implicitly defined a chamfering angle β lying in the range 0° to 180°, and on the other hand in the passage at page 9, line 22 of the application as filed, which disclosed a range of 5° to 90° for the same angle.

1.3 Claim 1 of the application as filed - published as WO 98/40156 - reads:

"*A homogenizer valve comprising flow restricting surfaces (156, 158) opposing each other on either side of a laterally extended valve gap (170), wherein downstream terminations (188, 187) of the opposed surfaces are staggered by at least a distance necessary to inhibit chattering of the valve but wherein the overlap is small enough such that mixing layers of a fluid being expressed through the valve gap converge with a homogenization zone beyond the terminations of the surfaces*".

It can be observed that this claim discloses neither any angle nor that the downstream terminations are chamfered, let alone that the chamfering angle β is supposed to lie in the range of from 0° to 180°, as asserted by the appellant.

In these circumstances, in particular in the absence of an indication in the claim that the downstream terminations should be chamfered, the claim also includes other designs for the said terminations, for instance a design whereby the terminations can be rounded, without any chamfering angle.

For the above reasons, the appellant's argument that the absence of disclosure of the chamfering angle β implicitly corresponded to the disclosure of a range of from 0° to 180° as regards this angle is not accepted and claim 1 as filed cannot be seen as disclosing directly and unambiguously a range of $0° < \beta < 180°$ as regards the chamfering angle β.

1.4 The other passage - page 9, lines 20 to 23 of the application as filed - cited by the appellant as a basis for the amendment at issue discloses that "*on the downstream, low pressure side of the gap 102, the valve seat slopes away from the valve surface at an angle from 5 to 90° or greater, 45° in the illustrated embodiment*".

1.5 It can be observed that there is no disclosure at all in this passage for a chamfering angle at the valve surface, let alone that the said angle should be in the range claimed ("*less than about 90° to respective planes defined by the opposed flow restricting surfaces (156, 158)*").

1.6 As the application as filed does not disclose any further passage wherein the downstream terminations are defined as being "*each angled by less than about 90° to respective planes defined by the opposed flow restricting surfaces (156, 158)*", for the board the subject-matter of claim 1 at issue represents a broadening of the original disclosure and thus extends beyond the content of the application as filed, contrary to Article 123(2) EPC.

2. *Auxiliary request IB - Amendments*

2.1 Claim 1 of this request includes in particular the feature that the "*downstream terminations (188, 187) of the opposed surfaces are each sloping away from respective planes defined by the opposed flow restricting surfaces (156, 158) at* ***an*** *angle (β) from 5 to 90°*" (emphasis added by the board).

With this amendment, the appellant seeks protection for an apparatus having downstream terminations (188, 187) which do not necessarily slope away from the opposed flow restricting surfaces with the **same** angle (β), as in the set of claims maintained by the opposition division, but which slope away therefrom with angles (β) which may be different one from another.

2.2 The appellant submitted that the above amendment was in particular disclosed in the application as filed in the second paragraph at page 13, which reads: "*More generally, wall effects from the valve surface 156 and valve seat 158 will not otherwise arise as long as the chamfering angle β, which is illustrated as 45 degrees, does not approach the angle of divergence of the turbulent mixing layer, α, which is 5.7 degrees. Usually, the angle β is at least 10 degrees to avoid the risk of any attachment of the laminar flow to the wall.*".

2.3 As regards the teaching of the passage just cited, the board can accept the appellant's arguments that:

- the skilled person gets the clear and unambiguous teaching from this passage that wall effects (i.e. any attachment of the laminar flow to the wall) occur at both the valve surface and the valve seat;

- the solution to avoid this problem is to provide a chamfering angle β for both the valve surface and the valve seat;

– the scope of protection is not limited to the embodiment illustrated in Figure 6 with the same chamfering angle β (= 45°) at both the valve surface and the valve seat.

The board however does not accept the further argumentation of the appellant that the two chamfering angles β had clearly and unambiguously not to be the same, because the passage in question is without any doubt totally silent as to the question whether the chamfering angles at the valve surface and at the valve seat might be identical or different.

2.4 In the board's view, the above amendment to claim 1 of this request does not meet the requirements of Article 123(2) EPC for the following reasons:

– The application as filed does not explicitly disclose that the angle (β) at the valve surface termination can be different from the angle (β) at the valve seat termination.

– In Figures 3, 5 and 6 - reproduced below - the sloping angle at the valve seat termination (187) is manifestly the same as the angle at the valve surface termination (188):

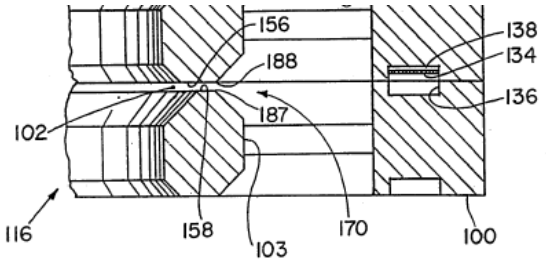

FIG. 3

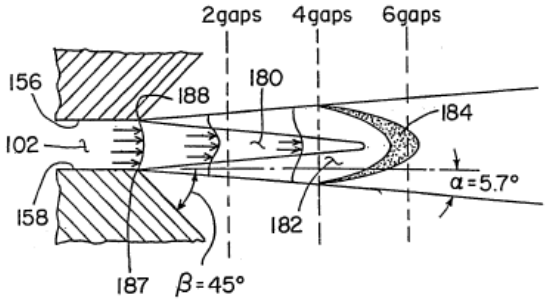

FIG. 5

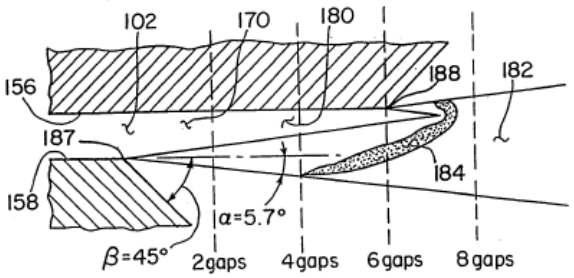

FIG. 6

– The passage at page 9, lines 20 to 23 of the application as filed discloses (see point 1.4 above) that the valve seat slopes away from the valve surface at an angle (β) from 5 to 90°. The passage does not however disclose that the valve surface simultaneously slopes away from the plane defined by the opposed flow restricting surface at an angle of 5 to 90°, let alone that these angles might be different.

2.5 In this context, there is no direct and unambiguous disclosure in the application as filed for the amendment to claim 1 of this request. This amendment corresponds to a broadening of the original disclosure as regards the introduction of the word "an". Hence, it is concluded that claim 1 of the auxiliary request IB does not meet the requirements of Article 123(2) EPC.

3. *Auxiliary request II - Amendments*

The amendment to claim 1 of this request includes the same critical feature as the one at issue with respect to auxiliary request IB (see point 2.1 above). For the same reasons (see points 2.2 to 2.5 above) this amendment is not allowable under Article 123(2) EPC.

4. In conclusion, since none of the sets of claims underlying the present appeal meets the requirements of the EPC, in particular those of Article 123(2) EPC, none of the appellant's requests is allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

C. Vodz G. Raths