

Internal distribution code:

- (A) [-] Publication in OJ
- (B) [-] To Chairmen and Members
- (C) [-] To Chairmen
- (D) [X] No distribution

**Datasheet for the decision
of 13 February 2019**

Case Number: T 1925/14 - 3.2.07

Application Number: 07102276.8

Publication Number: 1842800

IPC: B65D88/20, B01F7/16

Language of the proceedings: EN

Title of invention:
Disposable mixing unit

Patent Proprietor:
Merck Chemicals and Life Science AB

Opponents:
GE Healthcare Bio-Sciences AB
Hano, Christian

Headword:

Relevant legal provisions:
EPC Art. 54(2), 56, 84, 100(a), 108, 113(1), 114(2)
EPC R. 99(2), 115(2)
RPBA Art. 12(4), 15(1), 15(3)

Keyword:

Admissibility of appeal - statement of grounds

Novelty - main request (no)

Inventive step - auxiliary request (yes)

Right to be heard - non-attendance at oral proceedings

Decisions cited:

T 0007/81, T 0032/81, T 1704/06

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1925/14 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 13 February 2019

Appellant: Merck Chemicals and Life Science AB
(Patent Proprietor) c/o Merck Aktiebolag
P.O. Box 3033
169 03 Solna (SE)

Representative: AWA Sweden AB
P.O. Box 11394
404 28 Göteborg (SE)

Appellant: GE Healthcare Bio-Sciences AB
(Opponent 1) Patent Department
Björkgatan 30
751 84 Uppsala (SE)

Representative: DTS Patent- und Rechtsanwälte
Schneckenbühl und Partner mbB
Marstallstrasse 8
80539 München (DE)

Appellant: Hano, Christian
(Opponent 2) Fichtenstrasse 6
82166 Gräfelfing (DE)

Representative: Sloboshanin, Sergej
V. Fünér Ebbinghaus Finck Hano
Patentanwälte
Mariahilfplatz 3
81541 München (DE)

Decision under appeal: **Interlocutory decision of the Opposition**
Division of the European Patent Office posted on
22 July 2014 concerning maintenance of the
European Patent No. 1842800 in amended form.

Composition of the Board:

Chairman I. Beckedorf
Members: A. Pieracci
 G. Patton

Summary of Facts and Submissions

- I. All the parties to the opposition proceedings, the patent proprietor and opponents 01 and 02, lodged an appeal in the prescribed form and within the prescribed time limit against the interlocutory decision of the opposition division maintaining European patent No. 1 842 800 in amended form according to the fourth auxiliary request.
- II. The oppositions have been filed against the patent as a whole based on Article 100(a) EPC (lack of novelty and inventive step), 100(b) EPC (insufficiency of disclosure) and 100(c) EPC (added subject-matter).

The opposition division considered the grounds under Article 100(b) and (c) EPC not to be prejudicial to the maintenance of the opposed patent.

The then main request (claims of the patent as granted) and the then first to third auxiliary requests were refused for lack of novelty.

- III. The patent proprietor requested:

that the decision under appeal be set aside
and

that the patent be maintained as granted (main
request)

or, in the alternative,

that the patent be maintained in amended form on
the basis of one of the sets of claims filed as
auxiliary requests 1 to 12 with the statement
setting out the grounds of appeal, where auxiliary
request 5 corresponded to the version of the patent
in amended form held by the opposition division in

the decision under appeal to meet the requirements of the EPC,
and
that the appeal of opponent 01 be rejected as inadmissible.

The patent proprietor also objected to admitting into the proceedings document D8 filed by opponent 01 and any document other than D1 and E2 and to allowing opponent 01 to argue on lack of inventive step based on documents D1 and E2, in respect of auxiliary request 5 and of any other request having an independent claim containing the features of claim 1 of auxiliary request 5.

IV. Opponents 01 and 02 requested:

that the decision under appeal be set aside and that European patent No. 1 842 800 be revoked.

V. The patent proprietor referred to the following document:

D1: US 6 670 171 B2

VI. Other than to D1, opponent 01 referred to the following document filed for the first time and together with the statement setting out the grounds of appeal:

D8: WO2005/118771 A

and to the following documents already present in the opposition proceedings:

D2: WO2005/082508 A1

D3: EP 0 375 413 A1

VII. Opponent 02, other than to D1 and to D2, referred to the following documents already present in the opposition proceedings:

E1: US 3 467 397

E2: WO 03/028869 A2

E3: US 3 940 052

E4: US 369 393

E5: US 4 783 172

E6: US 6 923 567

VIII. In order to prepare the oral proceedings scheduled upon all parties' requests for 13 February 2019, the Board communicated its preliminary assessment of the case to the parties by means of a communication pursuant to Article 15(1) RPBA. The Board indicated that the appeal of opponent 01 was preliminarily considered as being admissible and that the main request and auxiliary requests 1 to 4 were preliminarily seen as not being allowable.

IX. With a letter dated 7 December 2018, the patent proprietor informed the Board that they would not take part in the oral proceedings. No comments to the aforementioned preliminary opinion of the Board were filed.

X. Oral proceedings before the Board took place on 13 February 2019.

In accordance with Rule 115(2) EPC and Article 15(3) RPBA, the oral proceedings were held without the patent proprietor.

Opponents 01 and 02 confirmed their requests from the written proceedings (see point IV above).

For further details from the oral proceedings, reference is made to the minutes.

The decision was given at the end of the oral proceedings.

- XI. The opponents argue that the subject-matter of claim 1 of the main request and of auxiliary requests 1 to 4 is not new in view of D1 and that the subject-matter of claim 1 of auxiliary request 5 is not inventive in view of the teaching of document D1 taken as closest prior art in combination with the teaching of either document E2 or document D8.

In the written proceedings, the patent proprietor contests the arguments of the opponents and argues against the admissibility of the appeal of opponent 01 and against the admittance of document D8 into the proceedings.

The lines of arguments of the parties will be dealt with in detail in the reasons for this decision.

- XII. Independent claim 1 according to the main request, i.e. according to the patent as granted, reads as follows:

"A disposable mixing unit (1) adapted for mixing or agitating solutions, dispersing or homogenising solutions or suspending solids in liquids, which unit (1) comprises a thin-walled foldable container (3) of a soft material for holding the products, and a processing unit (6) arranged in the container and adapted to make the products move, wherein the

container comprises at least in its lower portion (4) a support (5) as a reinforcement made of a dimensionally stable material, and wherein the support (5) has a smooth surface (9), characterised in that the support supports the container (3) over substantially its entire lower portion (4) so as to counteract the occurrence of folds and other irregularities in the lower portion and the impairment of an even process effect."

XIII. Claim 1 according to the first auxiliary request reads (the features added with respect to claim 1 of the patent as granted are underlined):

"A disposable mixing unit (1) adapted for mixing or agitating solutions, dispersing or homogenising solutions or suspending solids in liquids, which unit (1) comprises a thin-walled foldable container (3) of a soft material for holding the products, and a processing unit (6) arranged in the container and adapted to make the products move, wherein the container comprises at least in its lower portion (4) a support (5) as a reinforcement made of a dimensionally stable material, and wherein the support (5) has a smooth surface (9) characterised in that the support supports the container (3) over substantially its entire lower portion (4) so as to counteract the occurrence of folds and other irregularities in the lower portion and the impairment of an even process effect, and wherein the support is made of thick or rigid plastic material."

XIV. Claim 1 according to the second auxiliary request reads (the features added with respect to claim 1 of the patent as granted are underlined):

"A disposable mixing unit (1) adapted for mixing or agitating solutions, dispersing or homogenising solutions or suspending solids in liquids, which unit (1) comprises a thin-walled foldable container (3) of a soft material for holding the products, and a processing unit (6) arranged in the container and adapted to make the products move, wherein the container comprises at least in its lower portion (4) a support (5) as a reinforcement made of a dimensionally stable material, and wherein the support (5) has a smooth surface (9) characterised in that the support extends over substantially the entire lower portion (4) of the container (3) and supports the container (3) over substantially its entire lower portion (4) so as to counteract the occurrence of folds and other irregularities in the lower portion and the impairment of an even process effect."

- XV. Claim 1 according to the third auxiliary request reads (the features added with respect to claim 1 of the patent as granted are underlined):

"A disposable mixing unit (1) adapted for mixing or agitating solutions, dispersing or homogenising solutions or suspending solids in liquids, which unit (1) comprises a thin-walled foldable container (3) of a soft material for holding the products, and a processing unit (6) arranged in the container and adapted to make the products move, wherein the container comprises at least in its lower portion (4) a support (5) as a reinforcement made of a dimensionally stable material, and wherein the support (5) has a smooth surface (9) on its inside characterised in that the support supports the container (3) over substantially its entire lower portion (4) so as to counteract the occurrence of folds and other

irregularities in the lower portion and the impairment of an even process effect."

XVI. Claim 1 according to the fourth auxiliary request reads (the features added with respect to claim 1 of the patent as granted are underlined, the features deleted are struck through):

"A disposable mixing unit (1) adapted for mixing or agitating solutions, dispersing or homogenising solutions or suspending solids in liquids, which unit (1) comprises a thin-walled foldable container (3) of a soft material for holding the products, and a processing unit (6) arranged in the container and adapted to make the products move, wherein the container comprises at least in its lower portion (4) a support (5) as a reinforcement made of a dimensionally stable material, and wherein the support (5) has a smooth surface (9) on its inside ~~characterized in that the support and~~ supports the container (3) over substantially its entire lower portion (4) so as to counteract the occurrence of folds and other irregularities in the lower portion and the impairment of an even process effect characterised in that an inside (10) of the support (5) is substantially cup-shaped without corners."

XVII. Claim 1 according to the fifth auxiliary request reads (the features added with respect to claim 1 of the patent as granted are underlined, the features deleted are struck through):

"A disposable mixing unit (1) adapted for mixing or agitating solutions, dispersing or homogenising solutions or suspending solids in liquids, which unit (1) comprises a thin-walled foldable container (3) of a

soft material for holding the products, and a processing unit (6) arranged in the container and adapted to make the products move, wherein the container comprises at least in its lower portion (4) a support (5) as a reinforcement made of a dimensionally stable material, and wherein the support (5) has a smooth surface (9) on its inside characterized in that the support and supports the container (3) over substantially its entire lower portion (4) so as to counteract the occurrence of folds and other irregularities in the lower portion and the impairment of an even process effect characterised in that the processing unit (6) comprises a rotatable or oscillatable mixer (16) and is drivable by indirect force transmission by means of a drive unit (17) outside the container (3) and the mixer (16) is, inside the container, rotatably or oscillatably connected to a jacket plate (18), which is hermetically sealed against the lower portion (4) of the container (3) and has a connection (19) for the drive unit (17) on the outside of the container."

Reasons for the Decision

1. Absence of the patent proprietor - Right to be heard (Article 113(1) EPC)

Although the patent proprietor did not attend the oral proceedings, the principle of the right to be heard pursuant to Article 113(1) EPC is observed since that provision only affords the opportunity to be heard and, by absenting itself from oral proceedings, a party gives up that opportunity (see the explanatory note to Article 15(3) RPBA cited in T 1704/06, not published in

OJ EPO; see also the Case Law of the Boards of Appeal, 8th edition 2016, sections III.B.2.7.3 and IV.E.4.2.6.d).

In accordance with Article 15(3) RPBA, the patent proprietor's written submissions have been taken into account by the Board and are discussed in the following reasons.

2. Admissibility of the appeal of opponent 01 (Article 108 EPC and Rule 99(2) EPC).
 - 2.1 The patent proprietor contests the admissibility of the appeal of opponent 01 arguing that the extent to which the decision is appealed has not been indicated by opponent 01 so that the requirements of Article 108 EPC and Rule 99(2) EPC are not fulfilled.
 - 2.2 In the statement setting out the grounds of appeal, opponent 01 indicates that "...The decision to maintain the patent on the basis of the fourth auxiliary request is appealed...", and after providing arguments in relation to the inventiveness of the subject-matter of claim 1, opponent 01 indicates that "...auxiliary request 4 does not involve an inventive step over a combination of D1 and D8...".
 - 2.3 The Board considers that it can be derived from these submissions, in particular from the argument of lack of inventive step of the subject-matter of claim 1, that opponent 01 requests to set the appealed decision aside and to revoke the patent.

It is noted that, if the extent to which the decision is to be amended can be inferred from the submissions of the appellant, this is sufficient to fulfil the

corresponding requirement of Rule 99(2) EPC (see also the Case Law of the Boards of Appeal, 8th edition 2016, IV.E.2.5.2.c), in particular the third and seventh paragraphs with reference to the requirements of Rule 64(b) EPC 1973 in which the "extent" requirement was implemented prior to current Rule 99(2) EPC entering into force; see also T 7/81, OJ EPO 1983, 98, and T 32/81, OJ EPO 1982, 225).

- 2.4 The above Board's opinion has been communicated to the parties with the communication pursuant to Article 15(1) RPBA.

The patent proprietor has not reacted to the above communication.

After having reconsidered the parties' submissions and the circumstances of the case, the Board holds the appeal of opponent 01 admissible since all the necessary requirements have been fulfilled.

3. Admittance into the proceedings of document D8 (Article 114(2) EPC and Article 12(4) RPBA)
- 3.1 Opponent 01 filed document D8 together with the statement of grounds of appeal, indicating that the filing is in response to the arguments presented for the first time during the oral proceedings in opposition, see points 30 and 34 of the minutes, and reflected in the decision of the opposition division, see points 6.3.2 and 6.3.3.
- 3.2 The patent proprietor contests the admissibility of document D8 as being late-filed and not more relevant than other documents already in the proceedings, such as E2. The patent proprietor also contests that a

detailed features analysis of D8 with respect to claim 1 has not been provided by opponent 01.

- 3.3 The Board, considering in detail the arguments of the parties, has come to the conclusion that the filing of document D8 is admittedly to be seen as a reaction to the arguments provided for the very first time at the oral proceedings in opposition in relation to the "gentle mixing", and this in relation to an auxiliary request which had been submitted only one month before the oral proceedings and which had never been discussed before such oral proceedings. The Board therefore considers that it is appropriate to admit document D8 into the proceedings notwithstanding the opposing issues raised by the patent proprietor.
4. Request of the patent proprietor not to allow opponent 01 to argue on lack of inventive step based on documents D1 and E2 in respect of auxiliary request 5.

The request of the patent proprietor not to allow opponent 01 to argue on lack of inventive step of auxiliary request 5 on the basis of D1 and E2 cannot be allowed, as it would deny opponent 01 the right to be heard granted by Article 113(1) EPC.

Opponent 01, being an appellant, cannot be deprived of their right to comment on the other parties' submissions, such as in relation to the inventive step of the subject-matter of claim 1 in view of the teaching of D1 and E2.

Moreover, since the decision under appeal deals, *inter alia*, with the issue of inventive step of the subject-matter of claim 1 according to the patent in amended form, which the opposition division held to meet the

requirements of the EPC, in view of the teachings of D1 and E2, the review of the decision under appeal is necessarily directed to this issue and said documents. All parties to the appeal proceedings are entitled to submit their case in this respect.

The request of the patent proprietor is therefore not allowed.

5. Main request

5.1 Novelty of the subject-matter of claim 1, corresponding to claim 1 of the patent as granted and to claim 1 according the main request in opposition proceedings (Article 100(a) EPC).

5.1.1 The patent proprietor contests the decision of the opposition division arguing that a disposable mixing unit according to claim 1 requires "...a support as a reinforcement made of dimensionally stable material... (which)...supports the container over substantially its entire lower portion...". Being a reinforcement, the support should have different properties with respect to the soft material it reinforces. In fact, according to the patent application as originally filed, it is made of thick or rigid plastic (see paragraph [0032]). Since the bottom (127) of the bag (105) of D1 cannot be distinguished by the walls of the bag (105), it cannot be a reinforcement. Only edges (128) and seams (129) can be seen as reinforcements; however, since they are located at the periphery of the base of the bag (105), they do not support the container over its entire lower portion as required by claim 1. A reinforcement made of dimensionally stable material is also not shown in D1.

5.1.2 The opponents argue that as apparent from D1 (e.g. column 3, lines 15-21, and figure 1), it is the whole lower part of the bag (105), with bottom (127), seam (129) and outer edges (128) which allows the bag (105) to be free standing and thus supports the bag (105). As the claim mentions "a support as a reinforcement", this includes the case in which the support is reinforced at specific points, whereas the whole support, constituted by bottom (127), seam (129) and outer edges (128), supports the container.

5.1.3 The Board cannot share the opinion of the patent proprietor and concurs with the opinions of the opposition division and of the opponents for the following reasons.

It is the whole lower part of the bag (105) of D1, the bottom (127) with outer edges (128) and the lower part of the seams (129), which allows the bag (105) to be free standing (see column 3, lines 15-17), and which therefore supports the bag (105) over its entire lower portion. The whole lower part of the bag (105) is thus considered to constitute the support of the bag (105). Since the indicated lower portion of the bag (105) allows the bag (105) to be free standing, it is to be considered as being made of a "dimensionally stable material" in the broadest sense of the term.

Furthermore, as outlined by opponent 01, the fact that the support acts as reinforcement does not exclude that it is reinforced (only) at some specific points in its structure; the lower part of seams (129), which are obtained by sealing the collapsible plastic when manufacturing the bag (see column 3, lines 18-20), and the outer edges (128) provide the reinforcement points of the support (see column 3, lines 15-17 and 20-21).

Therefore, contrary to the opinion of the patent proprietor, the Board considers that document D1 shows a disposable mixing unit (100) with a container (105) comprising at its lower portion (127) a support as a reinforcement (121, 127, 128, 129) made of dimensionally stable material, wherein the support (121, 127, 128, 129) supports the container (105) over substantially its entire lower portion.

As the disclosure in document D1 of the other features of claim 1 remains undisputed, there is no need for the Board to address them.

5.1.4 The above Board's opinion has been communicated to the parties with the communication pursuant to Article 15(1) RPBA. The patent proprietor has not reacted to the above communication. After having reconsidered the parties' submissions and the circumstances of the case, the Board holds that document D1 deprives the subject-matter of claim 1 of novelty.

5.2 Hence, the main request cannot be allowed.

6. First auxiliary request

Claim 1 as granted and as according to the main request has been amended by the introduction of the features that "...the support is made of thick or rigid plastic material...", for which support should be provided by paragraph [0032] of the application as originally filed.

The Board considers that the features "thick" and "rigid" do not unambiguously define the material

properties of the support, so that the subject-matter for which protection is sought remains undefined.

- 6.1 The above Board's opinion has been communicated to the parties with the communication pursuant to Article 15(1) RPBA. The patent proprietor has not reacted to the above communication.

After having reconsidered the parties' submissions and the circumstances of the case, the Board holds that the requirements of Article 84 EPC are not fulfilled.

- 6.2 As a consequence, the first auxiliary request cannot be allowed.

7. Second auxiliary request

Claim 1 as granted and as according to the main request has been amended by the introduction of the feature that the support "...extends over substantially the entire lower portion of the container...". Support for the amendment should be provided by the drawings and the other features of the application.

- 7.1 Novelty of the subject-matter of claim 1 (Articles 100(a) and 54 EPC)

- 7.1.1 The patent proprietor brings forward essentially the same arguments as for the features that the support "supports the container over substantially its entire lower portion" in relation to the main request.

- 7.1.2 The Board is of the following opinion.

As discussed for claim 1 according to the main request, considering the support of the bag (105) of D1 as being

constituted by the whole lower part of the bag (105), i.e. the bottom (121, 127) with outer edges (128) and the lower part of the seams (129), the support not only "supports the container over substantially its entire lower portion" but also "extends over substantially the entire lower portion of the container".

- 7.1.3 The above Board's opinion has been communicated to the parties with the communication pursuant to Article 15(1) RPBA. The patent proprietor has not reacted to the above communication.

After having reconsidered the parties' submissions and the circumstances of the case, the Board holds that the added features do not suffice to establish novelty of the subject-matter of claim 1 over the disclosure of D1.

- 7.2 Thus, the second auxiliary request cannot be allowed.

8. Third auxiliary request

The third auxiliary request corresponds to the first auxiliary request in the opposition proceedings.

Claim 1 as granted has been amended by specifying that the support has a smooth surface "...on its inside..." Support for the amendment should be provided by paragraphs [0035] and [0036] of the application as originally filed.

- 8.1 Novelty of the subject-matter of claim 1
(Articles 100 (a) and 54 EPC)

- 8.1.1 No further arguments have been brought forward by the parties in relation to this request with respect to the

ones already submitted in relation to the previous requests.

8.1.2 The Board endorses the opinion of the opposition division given in paragraph 3.2 of the reasons of the impugned decision. Since the support is constituted by the whole bottom part (121, 127) with its outer edges (128) and lower part of seams (129), and since according to D1 "...low flow regions or eddy pockets are avoided to ensure good mixing within the vessel..." (see column 3, lines 25-26), the support has a smooth surface in the broadest sense of the term, the surface of which is on its inside. This can also be derived from the representation of inner bottom surface (121) in figure 1 together with the information that it is "rounded to achieve good mixing" (see column 3, lines 29-30).

8.1.3 The above Board's opinion has been communicated to the parties with the communication pursuant to Article 15(1) RPBA. The patent proprietor has not reacted to the above communication.

After having reconsidered the parties' submissions and the circumstances of the case, the Board holds that the subject-matter of claim 1 of the third auxiliary request is also not novel.

8.2 Therefore, the third auxiliary request cannot be allowed.

9. Fourth auxiliary request

The fourth auxiliary request corresponds to the second auxiliary request in the opposition proceedings.

Claim 1 as granted has been amended by specifying that the support has a smooth surface "...on its inside..." as in claim 1 according to the third auxiliary request, and that "...an inside of the support is substantially cup-shaped without corners..." Support for the further amendment should be provided by paragraph [0017] of the application as originally filed.

9.1 Novelty of the subject-matter of claim 1
(Articles 100(a) and 54 EPC)

9.1.1 The patent proprietor argues that seams (129) and edges (128) of the mixing unit of D1 do not form a cup-shaped support.

9.1.2 The Board essentially shares the opinion given by the opposition division in point 4.2.2 of its reasons for the decision for the corresponding auxiliary request 2 in the opposition proceedings.

Considering the support as being constituted by the bottom (127) of the bag (105), the outer edges (128) and the lower parts of seams (129), since its inner bottom surface (121) is rounded (see column 3, lines 29-30 and figure 1), it follows that the feature "...an inside of the support is substantially cup-shaped without corners.." is also disclosed by document D1.

9.1.3 The above Board's opinion has been communicated to the parties with the communication pursuant to Article 15(1) RPBA. The patent proprietor has not reacted to the above communication.

After having reconsidered the parties' submissions and the circumstances of the case, the Board holds that

document D1 deprives the subject-matter of claim 1 of novelty.

9.2 Consequently, the fourth auxiliary request cannot be allowed.

10. Fifth auxiliary request

The fifth auxiliary request corresponds to the fourth auxiliary request in the opposition proceedings on whose basis the opposed patent has been maintained in amended form.

Apart from specifying that the support has a smooth surface on its inside as in claim 1 according to the third auxiliary request, claim 1 as granted has been amended by the insertion of the combination of features of dependent claims 12 and 13 as originally filed, corresponding to dependent claims 11 and 12 of the patent as granted.

10.1 Inventive step of the subject-matter of claim 1 in view of the combination of D1 with E2 (Articles 100(a) and 56 EPC)

10.1.1 The opponents argue that document D1 shows not only the features of the preamble of claim 1 but also part of the characterising features of the claim, the only features not disclosed in D1 being that " (the jacket plate) is hermetically sealed against the lower portion of the container and has a connection for the drive unit on the outside the container...".

On the basis of the distinguishing features above, the opponents derive a plurality of problems to be solved, namely to provide a disposable mixing unit which allows

a good mixing while avoiding contamination and being of simple construction.

According to the opponents, the person skilled in the art would find a solution to these problems in many embodiments of E2, for example the embodiment of figures 1 and 2, in which a rigid element (14) having a lower portion providing a connection for the drive unit (24) is sealed against the lower portion of the container (10) (see page 13, lines 9-16, in which the leak-proof seal is mentioned). The first paragraph of page 15 of E2 discloses that the mixer unit of E2 can also be used when only gentle agitation is required, such as to prevent damage to delicate suspensions or to prevent stagnation of the fluid. The person skilled in the art would therefore introduce the rigid portion (14), possibly with impeller blades (B), and the connection for the drive unit shown in E2 (see figures 1 and 2 of E2) in the mixing unit of D1 to solve the posed problems and would thus arrive at a mixing unit according to the subject-matter of claim 1. All the structural modifications needed in this respect can be done by the person skilled in the art without the need of any inventive skill.

The opponents also argue that in E2 it is shown to use a jacket plate with a rotatable mixer sealed against the lower portion of a container made of soft material, the same material which is used for the container of D1, a rigid container being used only in figure 2 of E2. Since the person skilled in the art derives from E2 the information that the jacket plate with the mixer of E2 can be used for a container made of soft material, he would add it into D1 to solve the posed problems, no other feature of E2 needing to be introduced in D1.

10.1.2 The patentee essentially argues that D1 specifically teaches away from using an impeller with blades as the one of E2, since in column 1, lines 33-45, the disadvantages of such system are indicated. These disadvantages are also implicitly recognised in the first paragraph of page 15 of E2. The person skilled in the art would not therefore combine the teachings of D1 and E2.

10.1.3 The Board considers that, independently from the passage in column 1, lines 33-45 of D1, the person skilled in the art would not introduce the jacket plate with the rotatable mixer of E2 in D1 to solve the problems indicated above for the following reasons.

The blades (145) of D1 are flexible, thus providing a good mixing, and are connected to the headplate (125) sealed to the top of the bag (105), whereby, through the sealing, contamination is avoided (see column 2, line 63 - column 3, line 15 of D1). Therefore, the technical effect of providing a good mixing and avoiding contamination is already realised in D1, and the person skilled in the art has no reason to consider the teaching of E2 to achieve this effect.

The opponents have not explicitly indicated how in practice the disposable mixing unit of D1 is to be adapted and redesigned to allow the addition of the jacket plate (14) of E2 so that a functioning disposable mixing unit is obtained.

In particular, the Board considers that it has not been plausibly shown how, starting from the construction of the disposable mixing unit of D1 and adapting this arrangement so as to introduce the jacket plate with the rotatable mixer of E2, a simple construction is

obtained. According to the Board, this is also not obviously apparent from the specific examples of the mixing units of D1 and E2.

In the Board's opinion the person skilled in the art would not therefore consider combining the teaching of D1 with that of E2, as suggested by the opponents, with the aim of obtaining a disposable mixing unit of simple construction, since it is not evident how such a simple construction would be achieved in practice.

10.2 Inventive step of the subject-matter of claim 1 in view of the combination of D1 with D8 (Articles 100(a) and 56 EPC)

10.2.1 The opponents consider as problems to be solved those considered in the previous paragraph as well as the problem of providing an alternative way of mixing with respect to that of D1.

The opponents argue that the passage in column 1, lines 33-45 of D1 provides an indication for considering a rotatable mixer with blades like the one shown in figure 3 of D8 as a plausible alternative to the mixing device of D1. In figure 3 of D8, a mixer presenting the distinguishing features of the claim is shown, and in figure 1b it is represented how the motor (110, 112) activating the mixing device is to be installed.

For the opponents, the person skilled in the art with the aim of finding an alternative way of providing mixing would then consider the teaching of D8 and provide a jacket plate with a rotatable mixer at the base of the bag (105) of D1 and then also install a motor for activating the rotatable mixer in the space available at the base of the same bag (105), slightly

offset from the bottom, thereby arriving at a disposable mixing unit according to the subject-matter of claim 1.

The opponents also argue in a similar way starting from the embodiment of D1 in which a metal plate is provided at the base of the mixing device (see column 3, lines 21-24, of D1).

The opponents further argue that the subject-matter of claim 1 does not require a drive unit but only that the jacket plate has a connection for the drive unit.

10.2.2 The Board is not convinced by the arguments of the opponents.

Analogously to the discussion in relation to E2, the person skilled in the art starting from D1 has no reason to consider the teaching of D8 to avoid contamination and to provide a good mixing, since this is already achieved by D1 itself. As for E2, also for D8 it has not been plausibly shown that the incorporation of the jacket plate and mixer of D8 in D1 would provide a simple construction. The person skilled in the art would not therefore consider the teaching of D8 with the aim of obtaining a simple construction.

It can be agreed that in figure 3 of D8 a jacket plate with a rotatable mixer according to the distinguishing features of claim 1 is shown; however, the teaching of D8 is to provide the motor actuating the mixing device on the lower part of the mixing unit and to connect it to the rigid structure of the vessel (see motor 110, 112 in figure 1b). Such a rigid structure at the lower part of the bag (105) is not present in D1, see for instance figure 1 which shows a disposable and foldable

bag of soft material ("collapsible bag", see column 3, lines 38). The connection of the motor to a bag of soft material is not straightforward due to the weight of the motor and the deformability of the soft material. A teaching to install the jacket plate with a rotatable mixer and with the motor as in D8 to a vessel made of soft material is not present in this document, so that this combination of the teachings of D1 and D8 would not lead the person skilled in the art to the claimed subject-matter in an obvious way.

The same applies to the embodiment of D1 in which a base similar to headplate (125) is used (see D1, column 3, lines 21-24). The base similar to the headplate (125) is disclosed in D1 as an element to stabilise the bag (105) in the upright position and thus is to be positioned at the very lowest part, i.e. in place of edges (128), and not to be sealed with the concave part (121) of the bag (105) (see figure 1 of D1). Therefore, also in this embodiment, the motor for actuating the mixer would still need to be applied to the soft material forming the concave part (121) of the bag (105), and the same considerations as for the previous embodiment apply.

The person skilled in the art would not therefore consider D8 as giving any indication for providing a feasible alternative to the way mixing is performed in D1.

With respect to the argument of the opponents, that the subject-matter of claim 1 does not require a drive unit but only that the jacket plate has a connection for the drive unit, the following is noted.

The Board, although agreeing with the opponents in principle, notes that when looking for an alternative to the way mixing is performed in D1, the person skilled in the art has to keep in mind that the obtained alternative should still be a properly functioning alternative and cannot disregard the fact that a drive unit is then to be provided and connected in such a way that the mixer apparatus is operable. Therefore, the argument of the opponents, that the drive unit is not part of the claimed subject-matter, cannot lead the Board to change the way the combination of the teachings of the documents of the prior art is assessed.

10.3 Therefore, the Board comes to the conclusion that the subject-matter of claim 1 according to the fifth auxiliary request is non-obvious in view of the teaching of document D1 taken as closest prior art in combination with the teaching of either document E2 or document D8.

10.4 The opponents did not submit any further objection to the fifth auxiliary request, as confirmed at the oral proceedings.

11. As a result of the aforementioned findings, the Board concludes

that none of the patent proprietor's requests on which they rely with their appeal beyond and higher-ranking to what the opposition division held to meet the requirements of the EPC (then fourth auxiliary request and now fifth auxiliary request) is allowable;

that none of the objections raised by the opponents to the patent in amended form as maintained by the decision under appeal is convincing; and

that, in consequence of this, the appeal of the patent proprietor as well as the appeals of the opponents are to be dismissed.

Order

For these reasons it is decided that:

All appeals are dismissed.

The Registrar:

The Chairman:



G. Nachtigall

I. Beckedorf

Decision electronically authenticated