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**Datasheet for the decision  
of 13 October 2017**

**Case Number:** T 0223/16 - 3.3.05

**Application Number:** 09722174.1

**Publication Number:** 2274085

**IPC:** B01F3/04, B01F7/00, B01F7/16,  
B01F7/22, B01F13/08, B01F15/00,  
B01F15/06, C12M1/00, C12M1/06

**Language of the proceedings:** EN

**Title of invention:**  
Method of mixing comprising a magnetic stirrer

**Patent Proprietor:**  
Sartorius Stedim Biotech GmbH

**Opponent:**  
GE Healthcare Bio-Sciences AB

**Headword:**  
Flexible container/SARTORIUS

**Relevant legal provisions:**  
EPC Art. 123(2), 56

**Keyword:**

Amendments - extension beyond the content of the application  
as filed (no)

Inventive step - non-obvious solution

**Decisions cited:**

**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 0223/16 - 3.3.05

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.05**  
**of 13 October 2017**

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

**Representative:** Bedford, Grant Richard  
GPO Europe  
GE International Inc.  
The Ark  
201 Talgarth Road  
Hammersmith  
London W6 8BJ (GB)

**Respondent:** Sartorius Stedim Biotech GmbH  
(Patent Proprietor) August-Spindler-Strasse 11  
37079 Göttingen (DE)

**Representative:** Müller-Boré & Partner  
Patentanwälte PartG mbB  
Friedenheimer Brücke 21  
80639 München (DE)

**Decision under appeal:** **Decision of the Opposition Division of the European Patent Office posted on 23 December 2015 rejecting the opposition filed against European patent No. 2274085 pursuant to Article 101(2) EPC.**

**Composition of the Board:**

**Chairman**            E. Bendl  
**Members:**            J.-M. Schwaller  
                          R. Winkelhofer

### **Summary of Facts and Submissions**

- I. The present appeal lies from the decision of the opposition division to reject the opposition against European patent No. 2 274 085.
- II. With the grounds of appeal, the opponent (appellant) provided arguments contesting the decision and objected to the granted claims under Articles 123(2) and 56 EPC.
- III. With its reply of 10 August 2016, the patentee (respondent) contradicted the appellant's arguments and filed seven auxiliary requests, with claim 1 of the second auxiliary request reading as follows:

*"1. A method of mixing comprising the steps of:*

- a. providing a flexible container (4) which comprises a centrally disposed magnetic driven shaft (6) with at least one impeller (10), wherein the magnetic driven shaft (6) can be assembled from at least two components (54, 54; 54, 54');*
- b. assembling the components (54, 54; 54, 54') from outside the flexible container (4) to form the centrally disposed magnetic driven shaft (6) with at least one impeller (10), whereby the integrity of the flexible container (4) is maintained, wherein the shaft (6) is assembled from at least two components (54, 54) connected by a hinge (62) which can be transformed from a folded position to an open position;*
- c. filling the flexible container (4) having the centrally disposed magnetic driven shaft (6) with one or more ingredients of the contents to be mixed;*
- d. engaging a magnetic element (8) of the centrally disposed magnetic driven shaft (6) with an external magnetic drive element;*

*e. analyzing the contents of the flexible container (4) using at least one sensor or a sampling line on the flexible container (4); and*  
*f. draining the contents of the flexible container (4) through a drain port (18) at the bottom of the flexible container (4)."*

The second auxiliary request further comprises eight claims dependent on claim 1.

- IV. In its preliminary opinion, the board expressed the view that claim 1 of the then main and first auxiliary requests appeared to lack inventive step over D1 (DE 20 2007 005 868 U1), which the parties acknowledged as representing the closest state of the art, taken in combination with common general knowledge or with the teaching of D2 (WO 2005/118771 A2).
- V. At the oral proceedings, after having discussed the inventive step of the main and first auxiliary requests - including a new auxiliary request not admitted into the proceedings - the appellant decided to maintain the claims of the second auxiliary request as the sole request.
- VI. After closure of the debate, the chairman established the parties' requests to be as follows:

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

The respondent requested that the patent be maintained in amended form on the basis of the sole request submitted as second auxiliary request with the reply of 10 August 2016.

VII. The arguments of the parties, insofar as they are relevant to the present decision, can be summarised as follows:

- For the **appellant**, claim 1 infringed Article 123(2) EPC as there was allegedly no basis in the application as filed for the feature that "*the magnetic driven shaft (6) can be assembled from at least two components*" (emphasis added). Furthermore, claim 1 did not meet the requirements of Article 56 EPC because the hinge connection was an obvious alternative to the telescopic arrangement known from D1.
- The **respondent** argued that there was a basis for the disputed feature on page 6 of the application as filed and, in the absence of any relevant document, that the claimed invention, in particular in view of the advantage associated with the hinge connection, was not obvious to the skilled person faced with the problem of providing for a flexible container which could be more easily assembled than the one known from D1.

### **Reasons for the Decision**

1. Allowability under Article 123(2) EPC

Claim 1 meets the requirements of Article 123(2) EPC because the disputed feature - that "*the magnetic driven shaft can be assembled from at least two components*" - has its basis in the passage at page 6, lines 18 and 19 of the application as filed, which reads: "Designing the central shaft using shaft elements that **can be** assembled before operation is particularly advantageous" (emphasis added).

Insofar as this feature is disclosed as particularly advantageous and in a generic way in said passage, it is directly and unambiguously combinable with the other features currently defined in claim 1, which correspond to the features of claims 1 and 3 as originally filed.

Dependent claims 2 to 9 have their basis in claims 5 to 12 as filed, respectively, and therefore also meet the requirements of Article 123(2) EPC.

## 2. Inventive step

2.1 Applying the problem-solution approach, the board came to the conclusion that the subject-matter of claim 1 involves an inventive step for the following reasons:

2.1.1 D1, which represents the closest state of the art and the best starting point to assess the inventive step of the claimed subject-matter, discloses a flexible disposable bioreactor with a centrally disposed, mechanically driven shaft provided with an impeller for mixing reactants, the shaft being extendable, e.g. telescopically, in order to adapt the length of the shaft to the size of the container.

It is undisputed that D1 does not disclose that:

- a magnetic element of the centrally disposed magnetic driven shaft is engaged with an external magnetic drive element;
- the content of the container is analysed using at least one sensor or a sampling line on the flexible container;
- the shaft is assembled from at least two components connected by a hinge which can be transformed from a folded position to a final position.



- 2.1.2 As to the problem underlying the invention, the respondent argued that it consisted in the provision of a method of mixing using a flexible container which could be more easily assembled compared with the one known from D1 (see reply to the appeal, page 8, lower part of the page).
- 2.1.3 As a solution to this problem, the contested patent proposes the method according to claim 1 at issue, which is in particular characterised in that the magnetically driven shaft is assembled from at least two components connected by a hinge which can be transformed from a folded position to a final position, thereby maintaining the integrity of the container.
- 2.1.4 On the question of whether the proposed solution successfully solves the problem identified in point 2.1.2, the appellant argued that the hinge connection was merely an alternative to the telescopic arrangement known from D1, which did not provide for any unexpected effect.

For the board, this conclusion is not convincing because by merely unfolding the folded flexible container, the claimed shaft can be assembled more easily than in D1.

Moreover, according to D1 the elements used have to be assembled from separate standardised parts connected by means of specific elements ("Anschlusssteile (21)") (see Figures 1, 4, 5 and paragraph [0035]). The embodiment described in paragraph [0022] refers to manual extension ("manuelles Ausziehen"), which also necessitates some means of fixing the extended shaft in its final position (see for instance paragraph [0009]).

In contrast thereto, claim 1 merely requires unfolding of the folded shaft, so separate parts do not have to be connected and a telescopic shaft does not have to be fixed in an undefined position by undescribed means (see paragraph [0062] of the patent in suit). At most a sleeve has to be slid over the hinge (see paragraph [0041] of the patent in suit).

This is considered to be a simplification over the method according to D1.

- 2.1.5 As regards obviousness of the claimed subject-matter over the closest prior art, none of the cited documents discloses the hinge connection, let alone its advantage over the telescopic arrangement.

The appellant argued that the hinge connection was common general knowledge, and thus an obvious alternative to the telescopic arrangement known from D1.

The board accepts that hinge connections are commonly known. However, in the absence of prior art suggesting that the assembly of the flexible container is facilitated by needing only to be unfolded to become operational, the proposed solution is not obvious to a skilled person faced with the problem underlying the invention. This conclusion also applies to the combination of the closest prior art with D2, as this document does not refer to assembling a shaft.

It follows from the above considerations that the subject-matter of claim 1 involves an inventive step (Article 56 EPC).

2.1.6 The same applies to claims 2 to 9, which depend on claim 1 at issue, and therefore also meet the requirements of Article 56 EPC.

## Order

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

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to maintain the patent in amended form on the basis of the sole request, submitted as second auxiliary request with the submission of 10 August 2016, and to adapt the description.

The Registrar:

The Chairman:



C. Vodz

E. Bendl

Decision electronically authenticated