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**Datasheet for the decision
of 8 May 2018**

Case Number: T 0030/16 - 3.3.05

Application Number: 06848465.8

Publication Number: 1971412

IPC: B01D29/56

Language of the proceedings: EN

Title of invention:

METHOD AND APPARATUS FOR THE FILTRATION OF BIOLOGICAL SOLUTIONS

Applicant:

SPF Innovations, LLC.

Headword:

Filtration module/SPF

Relevant legal provisions:

EPC Art. 84

Keyword:

Claims - support in the description (yes) - essential features

Decisions cited:

G 0002/88, T 0032/82, T 0409/91, G 0001/04

Catchword:



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Case Number: T 0030/16 - 3.3.05

D E C I S I O N
of Technical Board of Appeal 3.3.05
of 8 May 2018

Appellant: SPF Innovations, LLC.
(Applicant) Patent Department
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Representative: Hoeger, Stellrecht & Partner
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 21 July 2015
refusing European patent application No.
06848465.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

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

Summary of Facts and Submissions

- I. This appeal lies from the decision of the examining division to refuse European patent application No. 06 848 465.8 on the ground that claim 1 then on file did not meet the requirements of Article 84 EPC because its scope of protection was broader than justified by the extent of the description and drawings. In an *obiter dictum* the examining division further objected to the claim under Article 123(2) EPC.
- II. With its statement of grounds of appeal, the appellant filed three auxiliary requests.
- III. Following a communication from the board, which *inter alia* raised objections under Articles 123(2) and 84 EPC, the appellant filed four amended sets of claims as the new main and first to third auxiliary requests.
- IV. In a communication pursuant to Article 15(1) RPBA, the board expressed its preliminary opinion that certain features essential to the performance of the invention were missing from the subject-matter then claimed.
- V. On 24 April 2018, the appellant submitted four sets of amended claims, with independent claims 1 and 10 of the main request reading as follows (differences from claim 1 as underlying the decision emphasised by the board):

*"1. A filtration ~~system~~ **module** comprising:
a plurality of stages, each stage having a plurality of channels providing at least one serial flow path, each stage being in fluid communication with each adjacent stage preceding it and being in fluid communication with each adjacent stage that follows it;*

each of the plurality of channels comprising a filtration membrane and having a length, a membrane area, a void volume, a specific membrane area expressed as a ratio of the membrane area to the void volume, and a dimensionless length expressed as a product of the channel length and the specific membrane area; wherein a dimensionless length of a stage is the sum of the dimensionless lengths of each channel in the longest serial flow path in the stage and the dimensionless length of the **module system** is the sum of the dimensionless lengths of the plurality of stages; and

said filtration module system being characterized **in that said filtration module is setup as a single-pass tangential flow module without a recirculation loop and comprising means to provide a feed stream to the feed of the filtration module and means to adjust the specific feed flow rate to less than 200 lmh; in that said filtration membrane is in the form of a flat-sheet membrane; in that the specific membrane area of at least one channel is greater than 40 cm⁻¹, the dimensionless length of the ~~system~~ **module** is greater than 2,000 **and** the dimensionless length of at least one of the plurality of stages is less than 6,000; ~~and each of the plurality of stages comprises a feed spacer disposed adjacent the filtration membrane~~ **and in that the module further comprises a housing, wherein the plurality of stages is are disposed within the housing.**"**

"10. A process for filtering a liquid feed, said process comprising continuously supplying a feed stream at a specific feed flow rate of less than 200 lmh into a filtration module according to claim 1; and operating the module in a single pass tangential flow filtration mode."

Claims 2 to 9 are dependent on claim 1 and describe preferred embodiments thereof.

- VI. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request or, alternatively, of one of auxiliary requests 1 to 3, all requests as filed on 24 April 2018.

Reasons for the Decision

1. Main request - amendments

1.1 The feature "*the plurality of stages comprises a feed spacer disposed adjacent the filtration membrane*" that the examining division objected to under Article 123(2) EPC has been deleted from the claims.

1.2 The subject-matter of the new claims has its basis as follows in the application as filed:

- Claims 1 and 10: in claims 1, 6, 25 and 65, as well as in the description, on page 1, lines 7 to 9; page 6, lines 24 to 25; page 15, lines 25 to 29; and page 19, table 1;
- Claim 2: in claim 4;
- Claim 3: in claim 7;
- Claims 4 to 8: in claims 17 to 21;
- Claim 9: in claim 26.

The new claims thus meet the requirements of Article 123(2) EPC.

2. Main request - Article 84 EPC

2.1 It is established case law that, in order to comply with the requirements of Article 84 EPC, an independent

claim must indicate all the essential features of the object of the invention (see G 2/88, point 2.5 of the Reasons, and G 1/04, point 6.2 of the Reasons; see also Case Law of the Boards of Appeal, 8th ed. 2016, II.A. 3.2). In this respect, "the essential features" is considered to mean all the features which are necessary to obtain the desired effect or, in other words, which are necessary to solve the technical problem with which the application is concerned (see in particular T 32/82, point 15 of the Reasons).

Further, the requirements of Article 84 EPC reflect the general legal principle that the extent of the monopoly conferred by a patent, as defined in the claims, should correspond to the invention's technical contribution to the art (see T 409/91, point 3.3 of the Reasons). This means that the technical contribution of an invention does not lie in the fact that the problem is solved, but rather in the combination of features by which it is solved, i.e. in the features necessary to solve the technical problem underlying the invention.

- 2.2 In the present case, the problem underlying the invention is defined on page 6, lines 1 to 3, of the application as filed as being the provision of a single-pass filtration process providing high conversion with a relatively low hold-up volume.
- 2.3 As explained in the declaration by Mr Mir (one of the inventors in the present case) submitted in the examination proceedings, the filtration module according to the invention is set up as a single-pass tangential flow module without a recirculation loop and its specific feed flow rate must be adjusted to less than 200 l/mh.

These features, identified as essential to the performance of the invention by one of the inventors, are now reflected by the subject-matter of independent claims 1 and 10.

- 2.4 The claimed subject-matter has been further limited to a specific type of membrane, namely a flat-type membrane, so that claim 1 can no longer be held to be broader than justified, as alleged by the examining division.
- 2.5 It follows from the above considerations that the claimed subject-matter now corresponds to the invention's technical contribution to the art, as it should according to T 409/91 (see point 2.1 above), so that the specific requirement of Article 84 EPC that the claims be supported by the description is fulfilled.
3. Since the reasons that led to the refusal of the application no longer apply, the board exercises its discretion under Article 111(1) EPC and remits the case to the examining division for further prosecution.

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 for further prosecution on the basis of the claims according to the main request filed on 24 April 2018.

The Registrar:

The Chairman:



C. Vodz

E. Bendl

Decision electronically authenticated