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**Datasheet for the decision
of 25 August 2011**

Case Number: T 0971/10 - 3.3.06

Application Number: 04804968.8

Publication Number: 1706189

IPC: B01D 3/20

Language of the proceedings: EN

Title of invention:
Gas-liquid contacting tray

Applicant:
Shell Internationale Research Maatschappij B.V.

Opponent:
-

Headword:
Contacting tray/SHELL

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 84, 111(1)
EPC R. 35(12)

Keyword:
"Main request: clarity (no) - the term substantially renders
the claimed subject-matter vague"
"Auxiliary request: clarity (yes)"

Decisions cited:
T 0728/98, T 0198/91, T 0386/07, G 0002/88

Catchword:
-



Case Number: T 0971/10 - 3.3.06

D E C I S I O N
of the Technical Board of Appeal 3.3.06
of 25 August 2011

Appellant: Shell Internationale Research Maatschappij B.V.
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Representative: Matthezing, Robert Maarten
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 29 December 2009
refusing European patent application
No. 04804968.8 pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: P.-P. Bracke
Members: G. Dischinger-Höppler
U. Tronser

Summary of Facts and Submissions

- I. This appeal is from the decision of the Examining Division to refuse the European patent application No. 04 804 968.8 relating to a gas liquid contacting tray.
- II. The Examining Division objected under Article 84 EPC to the claims as filed with Claim 1 reading:

1. A gas-liquid contacting tray suitable for horizontal mounting in a normally vertical column, which tray comprises

- a tray plate with substantially circular circumference and having top and bottom surfaces, which tray plate is provided with passages for gas between the bottom and the top surface, and on which tray plate two semi-circular tray sections are defined by a virtual diametrical line of the tray plate; and
- a total of three downcomers for guiding liquid from the top surface of the tray plate to below the tray, each downcomer extending from an inlet opening arranged in the tray plate to a downcomer outlet opening below the tray, wherein two of the downcomers are arranged in the corners of one of the semi-circular tray sections, and wherein the third downcomer is arranged on the other tray section substantially along a radius of the tray that is perpendicular to the diametrical line.

In its decision, the Examining Division held that the terms "substantially circular" and "substantially along a radius" did not fulfil the requirement of clarity of Article 84 EPC.

In particular, it was held to be unclear whether the term "substantially circular" only encompasses deviations from the circular shape within the tolerances of manufacture or whether it encompasses

also elliptical or polygonal shapes, the latter being incompatible with the feature concerning the semi-circular tray sections. Further it was unclear whether the term "substantially along a radius" might include positions of the downcomer wherein the alleged advantages of symmetry stated on page 6, lines 20 to 33 of the description did not occur.

III. With its statement of grounds of appeal the Applicant (hereinafter Appellant) requested oral proceedings and argued that the goal of the clarity requirement of Article 84 EPC was to protect the interest of the general public to be able to understand the scope of a granted patent.

This goal was fulfilled by the claims at issue since they only covered gas-liquid contacting trays with the specifically arranged downcomers. Contrary to the decision T 728/98 cited by the Examining Division, the feature "circular" was not essential for delimiting the present invention from the prior art.

The Appellant agreed that the term "substantially" introduced a level of unclarity. However, it was held that this level of unclarity was usually inherent to patent claims since it was normally not possible to draft a patent so that it is mathematically clear and precise.

While being a broad expression, the terms "substantially" as well as its synonyms "basically" or "fundamentally" were unambiguous for a person skilled in the art.

It was clear that neither the trays nor the semi-circular tray sections need to be exactly circular or semi-circular but may have slightly different shapes. The exact level of roundness would be clear from the description of the application. Moreover, the shape of the trays was further defined by the fact that they were useful in a normally vertical column.

Restricting the patent to perfectly circular trays would, therefore, unjustly reduce the scope of the claims.

- IV. In a communication dated 15 June 2011 and annexed to the summons for oral proceedings on 25 August 2011, the Board gave reasons for its preliminary opinion that the pending sets of claims did not comply with the requirements of Article 84 EPC due to the use of the expressions "substantially" and "normally" in conjunction with the terms "circular", "along a radius", "vertical" and "conforming".
- V. In its letter of response dated 19 August 2011, the Appellant announced to be not represented at the oral proceedings, withdrew its corresponding request, maintained the claims as filed as main request and filed an amended set of claims and an amended description in an auxiliary request which differed from those originally filed insofar as the terms "substantially" and "normally" were deleted from the claims.

By referring to decisions T 198/01 and T 368/07, the Appellant produced the argument that the expressions in

questions met the clarity standard applied by the European Patent Office.

The Appellant in writing requested that the decision under appeal be set aside and that a patent be granted on the basis of Claims 1 to 8 as originally filed as the main request or, alternatively on the basis of Claims 1 to 8 filed under cover of a letter dated 19 August 2011 as the auxiliary request.

VI. The oral proceedings were held as scheduled in the announced absence of the Appellant.

Reasons for the Decision

1. *Main request*

1.1 According to Article 84 EPC the patent claims must define the subject-matter for which protection is sought and be clear. The importance of the clarity requirement is due to the necessity of legal certainty, as the purpose of the claims is to enable the protection conferred by a patent to be determined (see Case Law of the Boards of Appeal of the European Patent Office, 6th edition, 2010, chapter II.B.). Insofar, the Board agrees with the Appellant.

In the present case, the question at issue is whether the expressions "substantially circular circumference", "substantially along a radius of the tray", "normally vertical column" and "substantially conforming to the circumference of the tray" mentioned in the claims to

define a gas liquid contacting tray fulfil the above requirements.

- 1.2 The Appellant admitted that the terms in question introduce a certain level of unclarity but was of the opinion that this level did not exceed the one generally inherent in patent claims. Their deletion would unjustly limit the patent protection since it was clear from the description of the application that the trays need not be exactly circular.

By referring to decisions T 198/01 and T 386/07, the Appellant argued that the term "substantially" was found clear in decisions of the Board of Appeal. There was no reason to apply to the present claims the requirement of clarity more strictly than usual. Decision T 728/98 cited by the Examining Division did not apply in the present case since the feature "circular" was not essential for delimiting the present invention from the prior art.

- 1.3 The Board agrees with the Appellant insofar as decision T 728/98 does not seem to be relevant for the present case. In this decision, it was found that the term "substantially pure" used to define a chemical compound was unclear. On a first sight, it might appear that the term "substantially pure" would display the same "level of clarity" as the terms "substantially circular" and "substantially along a radius". However, upon deleting the expression "substantially" it is apparent that the term "pure" in relation with a chemical compound is still vague as it does not define any particular level of purity. In contrast, the terms "circular" and "along

a radius of the tray" define a particular geometry of a physical device.

The Board further agrees that it would be unfair to restrict the claimed subject-matter to "perfectly" circular trays.

However, as is established in Rule 35(12) EPC (1973), last sentence, patent applications should contain only technical terms which are generally accepted in the field in question. Accordingly, for the purpose of Article 84 EPC, a particular technical term has to be given the meaning it usually has in the particular technical field concerned.

This means that in the field of gas-liquid contacting apparatuses the term "circular" used for defining the shape of a tray never means 'exactly' or 'perfectly' circular but only circular within those tolerances which are usual in the manufacture of such apparatuses. The same applies to the term "along a radius of the tray" used to define the location of the third downcomer.

As a consequence, the use of the term "substantially" in combination with "circular" and "along a radius" suggests that deviations are included which are larger than those accepted tolerances. Since there is no explanation of what the deviations might be, the terms become vague and undefined with the result that it is no longer possible to determine the extend of protection conferred by the application (see also decision of the Enlarged Board of Appeal G 2/88, OJ EPO, 1990, 93 reasons no. 2.5).

On the contrary it might appear to be intended that the application shall include future embodiments, not thought about at the application date, since the application in suit does not disclose any other than a circular shape of the trays or any other arrangement of the third downcomer than along a radius of the tray.

The same arguments apply to the term "normally vertical column" when compared with the definition given on page 84 of "The Petroleum Handbook" filed by the Appellant during the examining proceedings and to the term "substantially conforming to the circumference of the tray" used in dependent Claims 5 to 7 of the main request.

Concerning decisions T 198/01 and T 386/07, the Board observes that the assessment of clarity is dealt with in a different manner. In particular, those decisions do not consider the fact that the meaning of technical terms in claims is neither absolute nor theoretical but governed by what is generally accepted in the technical field in question.

Further, the compositions of the Boards of Appeal vary from case to case, depending on the specific technical field. Hence, the assessment of the merits of a case may also vary to a certain degree due to different approaches with respect to the assessment of technical features. There cannot be an ultimate right for an equal assessment in all cases since such assessments are generally subject to mental development.

1.4 Having regard to the above, the Board concludes that the claims of the main request do not comply with the requirements of Article 84 EPC since the terms "substantially" and "normally" render the claimed subject-matter vague.

2. *Auxiliary request*

The application was refused on the grounds of Article 84 EPC due to the use of the term "substantially" in the main request. By deleting the terms "substantially" and "normally" from the claims of the auxiliary request, the clarity problems present in the claims of the main request are clearly overcome.

Since it is the function of appeal proceedings to give a judicial decision upon the correctness of a separate earlier decision taken by a first-instance department (Case Law of the Boards of Appeal, 6th ed. 2010, VII.E.1), the Board finds it appropriate to make use of its power under Article 111(1) EPC and remits the case to the first instance 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 Examining Division for further prosecution on the basis of the auxiliary request filed with the letter dated 19 August 2011.

The Registrar:

The Chairman:

D. Magliano

P. Bracke