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**Datasheet for the decision
of 13 September 2013**

Case Number: T 0560/12 - 3.4.02

Application Number: 07834564.2

Publication Number: 2076738

IPC: G01F1/05

Language of the proceedings: EN

Title of invention:

ORBITAL BALL FLOWMETER FOR GAS AND FLUID

Applicant:

Peters, Marcel Leonardus Joseph Petrus

Headword:

Relevant legal provisions:

EPC Art. 123(2)

RPBA Art. 13(1)

Keyword:

Amendments - added subject-matter (yes) - disclosure in drawings

Decisions cited:

T 0748/91, T 1011/07

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 0560/12 - 3.4.02

D E C I S I O N
of Technical Board of Appeal 3.4.02
of 13 September 2013

Appellant: Peters, Marcel Leonardus Joseph Petrus
(Applicant) Rådeckerstraat 30
6661 HG Elst (NL)

Representative: Verhees, Godefridus Josephus Maria
Brabants Octrooibureau,
De Pinckart 54
5674 CC Nuenen (NL)

Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 10 October 2011
refusing European patent application No.
07834564.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: A. Klein
Members: A. Hornung
L. Bühler

Summary of Facts and Submissions

- I. The applicant (appellant) has appealed against the decision of the examining division refusing the European patent application 07834564.2 on the basis of Article 123(2) EPC.
- II. The patentee requests to set aside the decision of the opposition division and to grant a patent on the basis of either the main request filed during oral proceedings, the first auxiliary request filed with letter of 12 August 2013 or the second auxiliary request filed during oral proceedings.
- III. Independent claim 1 of the main request reads as follows:

"Flow meter for gas and fluid of the type where the fluid or gas flow via the centre is taken to a larger diameter and put by blades in rotation where a ball is brought in a circular movement wherein the fluid or gas flows via a blade section (3) where blades (5) are placed in the part of the blade section (3) that the gas or fluid flow leads to a larger diameter and to a measuring chamber (7) that has the form of a ring where the ball (12) moves and where the blade section (3) is axial connected to the measuring chamber (7) and the outlet openings (10) are radial connected with the in central position being outlet (14), characterised by that in the part of the blade section (3) that the gas or fluid flow leads to a larger diameter the outer wall substantially has a conical inner surface."

Independent claim 1 of the first auxiliary request reads as follows:

"Flow meter for gas and fluid of the type where the fluid or gas flow via the centre is taken to a larger diameter and put by blades in rotation where a ball is brought in a circular

movement wherein the fluid or gas flows via a blade section (3) where blades (5) are placed in the part of the blade section (3) that the gas or fluid flow leads to a larger diameter and to a measuring chamber (7) that has the form of a ring where the ball (12) moves and where the blade section (3) is radial connected to the measuring chamber (7) and the outlet openings (10) are radial connected with the in central position being outlet (14) and wherein the flow passage at the blade section and at the measuring chamber is greater than at the inlet and at the outlet, characterised by that the inclination of the blades relative to the centerline of the flow meter and the inclination of the core relative to the centerline of the flow meter are substantially equal."

Independent claim 1 of the second auxiliary request reads as follows:

"Flow meter for gas and fluid of the type where the fluid or gas flow via the centre is taken to a larger diameter and put in rotation by blades where a ball is brought in a circular movement, comprising:

- an cylindrical inlet,
- a blade section comprising blades having an inclination relative to the centreline of the flow meter comprising
 - a first part leading the gas or fluid flow to a larger diameter, and
 - a second part leading the gas or fluid flow to a measuring chamber and having a cylindrical outer wall,
- which measuring chamber is ring shaped and axially connected to the blade section and having a cylindrical outer wall and a conical side wall,
- a ball inside the measuring chamber,
- a core having a cylindrical outer wall being concentric with and within the cylindrical outer wall and bounding the measuring chamber at the inner diameter of the measuring chamber and having openings to an outlet,

- which outlet is also cylindrical shaped,
wherein the core further has a cone being concentric with the
blade section,
wherein the ball having a diameter smaller than the width of
the measuring chamber measured in radial direction,
and wherein the inlet and outlet having the same diameter,
characterised in that the flow meter further comprises:
- a narrow part with reduced diameter with respect to the
diameter of the inlet and being near the inlet,
- a further narrow part with a reduced diameter with respect
to the diameter of the outlet and being near the outlet,
wherein the narrow part and further narrow part having the
same diameter,
wherein the first part of the blade section having a
substantially conical side wall,
and wherein the cone of the core is present inside the first
part of the blade section."

IV. The following document will be referred to in the present
decision.:

D1: NL 1013231

Reasons for the Decision

1. Main request

1.1 Claim 1 contains subject-matter which extends beyond the
content of the application as filed, contrary to the
requirement of Article 123(2) EPC.

Present claim 1 is based on originally filed claim 1,
wherein, inter alia, the feature "... in the part of the
blade section (3) that the gas or fluid flow leads to a

larger diameter the outer wall substantially has a conical inner surface" has been added to the claim.

The original description contains neither the explicit wording of, nor a clear hint towards the amended feature of an "outer wall of the blade section substantially having a conical inner surface".

The original description merely discloses that the "blade section (3) guides the fluid or gas flow to a larger diameter around core (4)" (page 1, lines 25-26) and that "the measuring chamber is bordered by the outer wall (8) of blade section, the conical side wall (9) and the core (4)" (page 1, lines 29-30). The description is not only silent about the shape of the inner surface of the outer wall of blade section and of its potential technical relevance, but does not even mention such an inner surface at all.

The only passages in the description mentioning a conical shape are related to the conical side wall (9) bordering the measuring chamber and the conical flow conduction part (15) of the core (4). However, both of these items represent different kinds of walls as compared to the outer wall of the blade section. Neither these passages mentioning conical shapes, nor any other passages of the original description, imply that the inner surface of the outer wall of the blade section is conical.

The only support for the feature at issue in the original application documents is to be found in figure 1 in which the inner surface of the outer wall of the blade section is shown with a conical shape at its upper part, followed by a cylindrical portion at its lower part. However, in the board's view, since the description does not contain any pointer at all towards a substantially conical inner surface of the blade section's outer wall, the skilled person could

not directly and unambiguously recognize such conical shape as being effectively a technical feature of the flow meter shown in figure 1 which is the deliberate result of the technical considerations directed to the solution of the technical problem involved, rather than an accidental expression of the draughtsman's artistic freedom (see e.g. T 1011/07, point 1.4 of the Reasons).

1.2 The applicant provided the following arguments in favour of compliance of the amendment with the requirement of Article 123(2) EPC.

1.2.1 According to the applicant the original drawing is a real and exact drawing of the flow meter, not a schematic drawing. Therefore, it is possible to measure from the drawing the exact length and shape of the constituting parts of the flow meter.

The board cannot agree, be it only because the original description does not indicate that the drawing is meant to reproduce the claimed device in all details and true to scale.

In addition, even if the figures of the application had been explicitly identified as exact constructional drawings of the flow meter to be patented, numerous pieces of information relating to various aspects of the drawings could be derived therefrom. Amongst all of these various aspects of the drawings, and in the absence of any credible support in the description, the substantially conical shape of the inner surface of the outer wall cannot be considered to have been unambiguously disclosed as a particular technical feature of the invention.

1.2.2 The applicant argued that the skilled person would learn from the original description, page 1, lines 7-15, that the

problem with conventional flow meters relates to the high flow resistance and that the solution to this problem requires the widening of the flow passage. By comparing the drawing of the flow meter of D1, figure 3, with that of the present invention, figure 1, the skilled person would immediately realize that the invention corresponds to the feature defined in the characterizing portion of present claim 1, i.e. that the inner surface of the outer wall of the blade section has a conical shape, contrary to what is shown in figure 3 of D1.

This argument is not found convincing. The application as filed refers to document DE100643093 as the sole prior art document. D1 is cited in the subsequent international search report but not in the application as filed. Therefore, D1 is not part of the content of the application as filed and may not even be taken into consideration as material which is incorporated into the specification from a referenced document. There is also no apparent reason why the skilled person would effectively consult D1 as part of the general knowledge when assessing the content of the application as filed.

But even assuming, for sake of discussion, that the skilled person would consult D1, he would realize from the comparison of the drawings that the two devices differ in many respects, but not necessarily with respect to the inner surface of the outer wall of the blade section, since both devices have at least a portion with a conical shape. Moreover, there appears to be no clear link between the solution of a wide flow passage and the exact physical shape of the inner surface of the outer wall of the blade section. As the original description does not point to the technical relevance of the shape of the inner surface of the blade section's outer wall, there is no straightforward reason for the skilled person to focus on this aspect of the drawing.

- 1.2.3 The applicant also referred to the decision T 748/91 in which the board came to the conclusion that size ratios can be inferred from a schematic drawing. By analogy, the feature at issue in the present case should also be considered adequately disclosed in the drawings.

The board cannot follow this argument because, in the case underlying T 748/91, it was clear for the skilled person that the relative thicknesses of the layers were correctly represented in the drawings and that the whole disclosure of the original application was directed towards the technical relevance of the size ratio of the layer thicknesses (see T 748/91, point 2.1.1).

In the present case, however, it is not apparent from the original application that the drawings are an exact representation of the shape of the inner surface of the blade section's outer wall. Moreover, the technical relevance of this feature is not mentioned at all in the original application documents. The case law cited by the applicant is not applicable, accordingly

2. First auxiliary request
- 2.1 Claim 1 contains subject-matter which extends beyond the content of the application as filed, contrary to the requirement of Article 123(2) EPC.
- 2.2 Present claim 1 is based on originally filed claim 1, wherein, inter alia, the feature "... the inclination of the blades relative to the centerline of the flow meter and the inclination of the core relative to the centerline of the flow meter are substantially equal" has been added to the claim.

The original description contains neither the explicit wording of, nor a clear hint towards the amended feature of equal inclination of the blades and the core, which might only be derived from Figure 1.

The original description merely discloses that the "blades are placed at an inclination relative of the centreline of the flow meter (1)" (page 1, lines 26-27) and that "the core (4) can be foreseen with a conical flow conduction part (15)" (page 2, line 2). From this information it cannot be deduced how the inclination of the three-dimensionally shaped blades and the core are exactly defined, and the less so whether the inclinations are equal or not. Since the original description does not mention the relative inclination of the blades and the core, nor its technical relevance for the invention, the same considerations apply as for the subject-matter of the main request.

3. Second auxiliary request

3.1 The second auxiliary request was filed at a very late stage of the proceedings, i.e. close to the end of the oral proceedings.

3.2 Claim 1 was completely reworded with respect to claim 1 of the main request and the first auxiliary request, and also with respect to the originally filed claim 1. Despite the complete rewording of the claim, the applicant did not provide a complete identification of the basis for each and every feature of the claim. The applicant merely referred generally to figure 1 of the original application and stated that the claim is drafted as a "portrait claim" meant to define exactly what was clearly shown in the drawings.

3.3 Due to the large number of features being exchanged and/or reformulated, the board has been confronted with a completely

new case at a very late stage of the proceedings. The board therefore decided to exercise the discretion conferred to it under Article 13 (1) RPBA not to admit and consider such amended request.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



M. Kiehl

A. Klein

Decision electronically authenticated