

**Internal distribution code:**

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

**Datasheet for the decision  
of 24 November 2025**

**Case Number:** T 1424/23 - 3.2.02

**Application Number:** 17770763.5

**Publication Number:** 3432813

**IPC:** A61B17/22, A61D1/02

**Language of the proceedings:** EN

**Title of invention:**

ROTATIONAL ATHERECTOMY DEVICE WITH A SYSTEM OF ECCENTRIC  
ABRADING HEADS

**Applicant:**

Cardiovascular Systems, Inc.

**Relevant legal provisions:**

EPC Art. 123(2)  
RPBA 2020 Art. 11

**Keyword:**

Oral proceedings - withdrawal of request for oral proceedings  
Amendments  
Remittal - special reasons for remittal

**Catchword:**

When assessing compliance of a European patent application with Article 123(2) EPC, it has to be established whether or not the application has been amended in such a way that it contains subject-matter which extends beyond the content of the application as filed.

If the claims filed on entry into the European phase do not correspond to those of the application as filed, those claims filed on entry into the European phase do not provide a basis for assessment of the compliance of amendments with Article 123(2) EPC.



**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

Case Number: T 1424/23 - 3.2.02

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.02**  
**of 24 November 2025**

**Appellant:** Cardiovascular Systems, Inc.  
(Applicant) 1225 Old Highway 8 NW  
St. Paul, Minnesota 55112 (US)

**Representative:** Boulton Wade Tennant LLP  
Salisbury Square House  
8 Salisbury Square  
London EC4Y 8AP (GB)

**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 31 January 2023  
refusing European patent application No.  
17770763.5 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairman** M. Alvazzi Delfrate  
**Members:** A. Martinez Möller  
C. Schmidt

## **Summary of Facts and Submissions**

- I. The appeal is against the examining division's decision to refuse European patent application No. 17770763.5. The examining division found that all of the requests then on file comprised added subject-matter.
- II. In its statement of grounds of appeal, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of:
  - the main request as filed on 18 November 2022
  - the first auxiliary request as filed on 18 November 2022 or
  - the second or third auxiliary requests as filed during the oral proceedings before the examining division
- III. The board scheduled oral proceedings.
- IV. The board issued a communication under Article 15(1) RPBA on 4 August 2025, providing its preliminary opinion and including the following points in particular.
  - The main request and the first auxiliary request contained added subject-matter.
  - The feature added to claim 1 of the second auxiliary request was disclosed in the published application.
  - There were special reasons to remit the case to the examining division.
- V. In a submission dated 28 October 2025, the appellant conditionally withdrew the main request and the first auxiliary request. The condition for the withdrawal was

that the board cancel the oral proceedings and remit the case to the examining division for further prosecution on the basis of the second auxiliary request as the new main request.

- VI. The board subsequently cancelled the oral proceedings.
- VII. Given that the present decision is to remit the case to the examining division for further prosecution on the basis of what was previously the second auxiliary request, the appellant's conditional withdrawal of the main request and the first auxiliary request as filed on 18 November 2022 takes effect. Consequently, the request labelled "2<sup>nd</sup> auxiliary request" is referred to below as the main request.
- VIII. Claim 1 of the main request (filed as "2<sup>nd</sup> auxiliary request" during the oral proceedings before the examining division) reads as follows.

"A high-speed rotational atherectomy device, comprising:

a guide wire (15);

a flexible, elongated and rotatable drive shaft (120) advanceable over the guide wire (15), the drive shaft (120) having a rotational axis (A);

an eccentric abrasive element (121E) disposed on the drive shaft (120) and spaced distally from an eccentric proximal counterweight (123E) and comprising a mass and a center of mass that is spaced radially away from the rotational axis (A) of the drive shaft (120) in a direction along a first longitudinal plane;

the eccentric proximal counterweight (123E) disposed on the drive shaft (120) and comprising a mass and a center of mass that is spaced radially away from the rotational axis (A) along a second longitudinal plane that is rotationally spaced from the first longitudinal plane; and

an eccentric distal counterweight (124E) disposed on the drive shaft (120) and spaced distally from the eccentric abrasive element (121E) and having a mass and a center of mass that is spaced radially away from the rotational axis (A) of the drive shaft (120) along a third longitudinal plane that is rotationally spaced away from the first longitudinal plane and from the second longitudinal plane;

wherein the high-speed rotational atherectomy device comprises more than two counterweights."

IX. The appellant's arguments, where relevant to the present decision, can be summarised as follows.

*Main request - added subject-matter*

The feature of claim 1 of the main request that the device comprised more than two counterweights could be derived from the published application. Its inclusion in claim 1 did not violate Article 123(2) EPC.

Paragraph [0079] of the published application described and defined a counterweight as referred to in the present application. It referred to "a system of an abrasive element with two or more counterweights", thus disclosing the possibility of having more than two counterweights. Furthermore, paragraph [0101] referred to "one or more counterweights" and paragraph [0107]

disclosed "more than one proximal counterweight, and/or more than one distal counterweight".

## **Reasons for the Decision**

### 1. Application

- 1.1 Atherosclerosis is characterised by the build-up of fatty deposits (atheromas) in the intimal layer of a patient's blood vessels. Often, these atheromas harden and become calcified. They create stenoses in the vessels and restrict the flow of blood.
- 1.2 Atherectomy refers to the removal of the obstructing material, i.e. atheroma, from blood vessels. Rotational atherectomy is one way to perform atherectomy in a vessel. Rotational atherectomy devices are used for removing calcified atherosclerotic plaque from arteries. They typically comprise a drive shaft with a burr and an abrasive material (e.g. diamond particles) on the surface of a burr. The burr is rotated at high speed within the vessel while it is advanced across the stenosis.
- 1.3 The application relates to high-speed rotational atherectomy devices.
- 1.4 An idea underlying the application is to achieve an orbital rotational motion of an abrasive element in order to open a stenosis to a diameter larger than the resting diameter of the abrasive element. One way to achieve this is to provide the abrasive element eccentrically on a drive shaft, such that its centre of mass is radially offset from the rotational axis of the drive shaft, combined with counterweights also disposed

eccentrically on the drive shaft. This allows the use of a smaller-diameter abrasive element to open a stenosis to a diameter equivalent to that achieved by known larger-diameter abrasive elements (see, for example, paragraphs [073], [089], [0094] and [095] of the application as filed).

1.5 Claim 1 of each of the requests on file defines a high-speed rotational atherectomy device comprising a guide wire, a drive shaft, an eccentric abrasive element disposed on the drive shaft, and counterweights disposed on the drive shaft.

2. Preliminary remarks on Article 123(2) EPC

2.1 The decision under appeal discusses the amendments made to claim 1 compared to the amended claim 1 filed on entry into the European phase. Moreover, the statement of grounds of appeal makes the argument as to why these amendments (compared to the amended claim 1 filed on entry into the European phase) find a basis in the application as filed.

2.2 However, when assessing compliance of a European patent application with Article 123(2) EPC, it has to be established whether or not the application has been amended in such a way that it contains subject-matter which extends beyond the content of the application as filed.

2.3 As stated in points 1.4 and 1.5 of the Reasons of G 3/89, the content of the application as filed consists of the description, claims and drawings as filed, i.e. on the filing date. In this case, the application as filed was published with the international application number WO 2017/165013 A1

("application as published"). The 35 claims there are the claims of the application as filed.

- 2.4 The claims filed on entry into the European phase do not correspond to those of the application as filed. Therefore, the claims filed on entry into the European phase do not provide a basis for assessment of the compliance of the amendments with Article 123(2) EPC.
3. Main request (filed as "2<sup>nd</sup> auxiliary request" during the oral proceedings before the examining division) - Article 123(2) EPC
- 3.1 The contested decision found that the feature "wherein the high-speed rotational atherectomy device comprises more than two counterweights" resulted in added subject-matter. This is the only reason why the current main request (then 2nd auxiliary request) was found not to be allowable.
- 3.2 Paragraph [0079] of the application as published defines a counterweight as an element located on the drive shaft either proximal or distal to an abrasive element. This also reflects how the term "counterweights" in the above feature of claim 1 would be construed by a person skilled in the art.
- 3.3 Paragraph [0079] also refers to a system "with two or more counterweights", albeit further specifying that in that system "the distances between each counterweight and the abrasive element are not equal", a feature which is absent from claim 1 of the main request.
- 3.4 Starting from paragraph [0099], the description as published refers to instability during operation when the device comprises a single element such as a single

abrasive burr, and to the possibility of using counterweights at proximal and/or distal locations to increase stability (paragraphs [0101] and [0102]). Starting from paragraph [0103], configurations with a proximal and a distal counterweight are described, and paragraph [0107] then discloses that "there may be more than one proximal counterweight, and/or more than one distal counterweight". This provides a basis for the above feature, given that the device of claim 1 of the main request already comprises a proximal and a distal counterweight. Hence, the feature above is directly and unambiguously derivable from the application as published.

#### 4. Remittal

4.1 The conclusion that the feature discussed above is disclosed in the application as published is not sufficient to determine whether or not the main request complies with Article 123(2) EPC. To do so, it is necessary to establish whether the patent application - including, in particular, the combination of features defined by claim 1 - contains subject-matter which extends beyond the content of the application as filed.

4.2 As mentioned in section 2. above, the examining division incorrectly relied on the claims filed on entry into the European phase for the assessment of Article 123(2) EPC. It therefore appears that a proper assessment of compliance with Article 123(2) EPC may not yet have been carried out.

4.3 Furthermore, it is not apparent from the first-instance proceedings whether the examining division could have had further concerns in relation to other requirements

of the EPC, for example in relation to Article 52(1) or 84 EPC.

4.4 Consequently, the board considers that there are special reasons within the meaning of Article 11 RPBA to remit 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 examining division for further prosecution.

The Registrar:

The Chairman:



A. Chavinier-Tomsic

M. Alvazzi Delfrate

Decision electronically authenticated