

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

# PCT

To:

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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43*bis*.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/IT2015/000299

International filing date (day/month/year)  
09.12.2015

Priority date (day/month/year)  
09.12.2014

International Patent Classification (IPC) or both national classification and IPC  
INV. B01F5/10

Applicant  
LAVANGA VITO

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:



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Date of completion of  
this opinion

see form  
PCT/ISA/210

Authorized Officer

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of:
  - the international application in the language in which it was filed.
  - a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2.  This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3.  With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
  - a.  forming part of the international application as filed:
    - in the form of an Annex C/ST.25 text file.
    - on paper or in the form of an image file.
  - b.  furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
  - c.  furnished subsequent to the international filing date for the purposes of international search only:
    - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
    - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4.  In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	<u>6, 7, 9, 10</u>
	No: Claims	<u>1-5, 8</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-10</u>
Industrial applicability (IA)	Yes: Claims	<u>1-10</u>
	No: Claims	

2. Citations and explanations

see separate sheet

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

1 **Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1.1 Reference is made to the following documents:

- D1 JP S60 34724 A (TOYOTA MOTOR CO LTD) 22 February 1985 (1985-02-22)
- D2 FR 1 366 894 A (ETABLISSEMENTS DAUBRON SOC D) 17 July 1964 (1964-07-17)
- D3 US 1 355 190 A (FREDERICK TRAUDT WILLIAM) 12 October 1920 (1920-10-12)

1.2 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of claim 1 is not new.

D1 discloses:

1.3 Method for the homogeneous and delimited mixing of fluids, both liquid and gaseous, forming part of a fluid mass in motion or in state of rest, whereby:

- taking part of the material from said fluid mass;
- making a vigorous mixing of the fluid material taken;
- reinserting the fluid mixed material into said fluid mass; said taking and reinsertion causing a flow in said fluid mass (see abstract).

Also D2 and D3 disclose all features of claim 1. Additionally, it should be said that any pump which has an inlet and an outlet would fall under the wording of this claim.

1.4 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of claim 4 is not new.

D1 discloses (See abstract, figure 1):

Device (7) for the homogeneous and delimited mixing of fluids, both liquid and gaseous, forming part of a fluid mass in motion or in state of rest, whereby it comprises:

- a first manifold (5), closed at both ends, on which a first plurality of holes (5a) is made, aligned along a generatrix of said first manifold;

- a second manifold (4), closed at both ends, on which it is made a second plurality of holes (4a) aligned along a generatrix of said second manifold;
- a pipe that connects said first manifold with said second manifold;
- pumping means (6), inserted in said pipe, which cause a movement of a fluid contained in said pipe by said first manifold (5) towards said second manifold (4);said first (5) and second (4) manifold being inserted in said fluid mass from which said fluid material is taken and reinserted creating a flow in said fluid mass, said stream being contiguous to said device (7).

Also D2 and D3 disclose all features of claim 4.

- 1.5 Dependent claims **2, 3** and **5-10** do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step. D1 (Figure 1) discloses the features of claims **2, 3, 5** and **8**, and renders the subject-matter of claims **6, 7, 9** and **10** obvious.

## **2 Re Item VIII**

### **Certain observations on the international application**

- 2.1 Claims **2** and **3** do not meet the requirements of Article 6 PCT because the matter for which protection is sought is not clearly defined. The claims attempt to define the subject-matter in terms of the result to be achieved, which merely amounts to a statement of the underlying problem, without providing the technical features necessary for achieving this result.