

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(PCT Rule 71.1)

To:

Essity Hygiene and Health AB
Essity IP Department
405 03 Göteborg
SUÈDE

Date of mailing
(day/month/year)

29.09.2025

Applicant's or agent's file reference
P20023WO

IMPORTANT NOTIFICATION

International application No.
PCT/EP2023/066319

International filing date (day/month/year)
16.06.2023

Priority date (day/month/year)

Applicant

Essity Hygiene and Health Aktiebolag

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary report on patentability and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international
preliminary examining authority:



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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P20023WO	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/EP2023/066319	International filing date (<i>day/month/year</i>) 16.06.2023	Priority date (<i>day/month/year</i>)	
International Patent Classification (IPC) or national classification and IPC INV. A47K10/42			
Applicant Essity Hygiene and Health Aktiebolag			
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 8 sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. ☐ a total of sheets, as follows: ☐ sheets of the description, claims and/or drawings which have been amended and/or sheets containing rectifications authorized by this Authority, unless those sheets were superseded or cancelled, and any accompanying letters (see Rules 46.5, 66.8, 70.16, 91.2, and Section 607 of the Administrative Instructions). ☐ sheets containing rectifications, where the decision was made by this Authority not to take them into account because they were not authorized by or notified to this Authority at the time when this Authority began to draw up this report, and any accompanying letters (Rules 66.4bis, 70.2(e), 70.16 and 91.2). ☐ superseded sheets and any accompanying letters, where this Authority either considers that the superseding sheets contain an amendment that goes beyond the disclosure in the international application as filed, or the superseding sheets were not accompanied by a letter indicating the basis for the amendments in the application as filed, as indicated in item 4 of Box No. I and the Supplemental Box (see Rule 70.16(b)). b. ☐ a separate electronic file containing a sequence listing (<i>sent to the International Bureau only</i>)			
4. This report contains indications relating to the following items: ☒ Box No. I Basis of the report ☐ 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 Article 35(2) with regard to novelty, inventive step or 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			
Date of submission of the demand 27.03.2025		Date of completion of this report 29.09.2025	
Name and mailing address of the international preliminary examining authority:  European Patent Office P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040		Authorized officer Boyer, Olivier Telephone No. +31 70 340-8422	



Box No. I Basis of the report

1. With regard to the **language**, this report is based on
- ☒ 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 (under Rules 12.3(a) and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4(a))
 - ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a) and (b))
2. With regard to the **elements*** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

Description, Pages

1-44 as originally filed

Claims, Numbers

1-11 as originally filed

Drawings, Sheets

1/11-11/11 as originally filed

- ☐ a sequence listing - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since either they are considered to go beyond the disclosure as filed, or they were not accompanied by a letter indicating the basis for the amendments in the application as filed, as indicated in the Supplemental Box (Rules 70.2(c) and (c-bis)):
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
5. ☐ This report has been established:
- ☐ taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rules 66.1(d-bis) and 70.2(e)).
 - ☐ without taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91(Rules 66.4bis and 70.2(e)).

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2023/066319

6. ☒ With regard to top-up searches (Rules 66.1 *ter* and 70.2(f)):
- ☒ A top-up search was carried out by this Authority on 16.09.2025 (all discovered documents are listed in the Supplemental Box Relating to Top-up Search).
 - ☐ Additional relevant documents have been discovered during the top-up search.
 - ☐ No top-up search was carried out by this Authority because it would serve no useful purpose.
7. ☐ Supplementary international search report(s) from Authority(ies) has/have been received and taken into account in establishing this report (Rule 45bis.8(b) and (c)).

* If item 4 applies, some or all of those sheets may be marked "superseded".

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	<u>10, 11</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-11</u>
Industrial applicability (IA)	Yes: Claims	<u>1-11</u>
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Re Item V

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

1 Reference is made to the following documents:

- D1 US 2015/282680 A1 (LARSSON BJÖRN [SE] ET AL) (2015-10-08)
- D2 US 2014/209624 A1 (LARSSON BJÖRN [SE]) (2014-07-31)
- D3 US 7 523 885 B2 (KIMBERLY CLARK CO [US]) (2009-04-28)
- D4 US 2012/125968 A1 (FRIESEN MATTHEW [CA] ET AL) 24 May 2012 (2012-05-24)

2 Independent claim 1

2.1 Document D1 is regarded as being the prior art closest to the subject-matter of claim 1 and discloses the following features in figures 1-4 and in paragraphs [0011], [0050] and [0052]:

Dispenser (2), comprising:

a housing (4) *(suitable) for accommodating paper towels (see PCT GL PART II, 5.23 for italic text), which are respectively connected to each other via*

perforations (52, 56), the housing comprising:

a front surface (6) and side surfaces, which respectively extend from the front surface towards a back of the dispenser, and

a dispensing opening (12) *for dispensing the paper towels;*

a dispensing mechanism (28,30) accommodated in the housing *for feeding the paper towels through the dispensing opening*, wherein the dispensing mechanism comprises two rotatable rollers (34,36,38,42,44) forming a nip ([0050], "nip...28...42" or [0052], "nip...34,36"), *wherein the paper towels pass through the nip*, and wherein at least one of the rollers is a driven roller ([0011], "automatic dispensing...electrically powered");

an actuator, which is configured to be actuated by a user ([0011], "user...actuate"); and

a controller configured to, upon actuation of the actuator, drive the driven roller by a predetermined amount of rotation ([0011], implicit, "automatic dispensing...electrically powered") *for feeding the paper towel towards the*

dispensing opening;

~~wherein the driven roller is configured to, in a non-driven state, be manually rotatable against a predetermined resistance upon an external pulling force on a leading paper towel extending from the dispensing opening ([0052], "34, 36 engage frictionally...as a user pulls on the web", meaning a friction is implicitly a resistance).~~

- 2.2 Applicant is of the opinion that "the present application, however, requires a feeding of paper towards – and not through – the dispensing opening by driving the driven roller by a predetermined amount of rotation". Applicant is also of the opinion that "D1...lacks a driven roller that is capable of actively feeding a leading paper towel of the paper towel source".

However, claim 1 currently reads "to, upon actuation of the actuator, drive the driven roller by a predetermined amount of rotation for feeding the paper towel towards the dispensing opening".

Figures 1 and 4 of D1 show that when the first towel of the web (50) is going through the dispensing opening (fig. 1, (12)), the second towel of the web (54) is fed towards the dispensing opening (12). Thus it is considered that the feeding of the towel is towards the dispensing opening.

Claim 1 currently reads: "an actuator, which is configured to be actuated by a user". However, claim 1 doesn't indicate if the actuator is manually or electrically via a switch/sensor actuated by a user. Paragraph [0011] reads indeed that "the dispenser may be arranged for automatic dispensing of web through a dispensing opening. The automatic dispensing may comprise electrically powered feeding of web material". The skilled person would implicitly understand that, if the feeding is electrically powered, it would need to drive at least a roller to actuate the feeding of the web. He would also implicitly understand that, in order to prevent the full stack of paper to be dispensed in one go and waste the full stack, there would logically be at least one or no more than a few towels that are dispensed at each user actuation. Thus, it is considered that D1 implicitly discloses that a roller is driven by a predetermined amount of rotation.

- 2.3 The subject-matter of claim 1 therefore differs from this known dispenser in that the driven roller is configured to, in a non-driven state, be manually rotatable against a predetermined resistance upon an external pulling force on a leading paper towel extending from the dispensing opening.

- 2.4 The problem to be solved by the present invention may therefore be regarded as how to modify the dispenser to ensure that paper is dispensed even when a drive with a predetermine amount of rotation is not working (e.g. in case of motor or power failure...).
- 2.5 Adding a manual mode to an automatic mode is described in D4 ([0010], [0033]), as providing the same advantages as in the present application (see D4, [0009]). The skilled person would therefore regard it as a normal option to include this feature in the dispenser described in D1 in order to solve the problem posed.
- 2.6 Thus, the subject-matter of claim 1 does not involve an inventive step and does not satisfy the criterion set forth in Articles 33 (1) and (3) PCT.
- 3 Independent claim 10
- 3.1 Document D1 discloses the following features in figures 1-4 and in paragraph [0050]:
- Method for filling a dispenser (2) according to any of the preceding claims, the method comprising the steps of:
- inserting a paper towel source (8) into the dispenser, wherein the paper towel source comprises at least two webs (50, 54), including:
a first elongate web (50) divided into paper towels defined between longitudinally separated perforations (52) extending across the first web, and
a second elongate web (54) divided into paper towels defined between longitudinally separated perforations (56) extending across the second web (23);
wherein the perforations of the first web are offset to the perforations of the second web in a longitudinal dimension of the first web;
 - guiding a leading edge (21) of the paper towel source through the nip ([0050], "nip...28...42" or [0052], "nip...34,36").
- 3.2 Document D2 discloses the features of claim 1 and in particular: dispenser (fig. 1-3, (10)), first elongate web (1) with separated perforations ([0055], last sentence), second elongate web (2) with separated perforations ([0055], last sentence), offset ([0038], "the lines of weakness of one web are offset from the lines of weakness of another web"), housing (11), dispensing opening (20), dispensing mechanism (16-27,29,30), two rotatable rollers ([0071], "first nip 29...opposed rollers...second nip...opposed rollers) and predetermined

resistance ([0065], "the resistance provided by the first nip 29 is such as to cause tearing of the first web 1 at the line of weakness defining the sheet product P1N to thereby separate the sheet product dispensed for the user").

3.3 The subject-matter of claim 10 is not novel and does therefore not meet the criteria of Articles 33 (1) and (2) PCT.

4 Dependent claims 2-9 and 11

The following dependent claims do not contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT set forth in Article 33(2) PCT in respect of novelty, and/or Article 33(3) PCT in respect of an inventive step.

Claim 2: known D1, [0025], last sentence and see D2, fig. 2, (21,24,29) and [0065], "the resistance provided by the first nip 29 is such as to cause tearing of the first web 1 at the line of weakness".

Claims 5-7: see D3, fig. 6, (122) and col. 8, lines 27-44, "the circuitry controller initiates a dispense cycle wherein the motor 100 drives the drive roller 38 until the predetermined number of pulses are detected by the optical encoder (drive roller revolution counter) indicating that the correct length of material has been dispensed".

Claim 8: see D3, col. 8, lines 27-44, "IR".

Claim 9: see D3, fig. 4, (146).

Claim 11: known from D1, ([0011], "user...actuate"), driven roller ([0011], "automatic dispensing...electrically powered"), predetermined resistance and web separated" ([0052], "34, 36 engage frictionally...web...separated...as a user pulls on the web", meaning a friction is implicitly a resistance)

In claims 3 and 4, slight constructional changes of claim 1 are suggested which come within the scope of the customary practice from the dispenser of D1 followed by persons skilled in the art, especially as the advantages thus achieved can be readily contemplated in advance. Consequently, the subject-matter of claims 3 and 4 also appears to lack an inventive step.

Re Item VII

5 **Certain defects in the international application**

- 5.1 Independent claims 1 and 10 are not in the two-part form in accordance with Rule 6.3(b) PCT.