Unified Patent Court
Einheitliches Patentgericht
Juridiction unifiée du brevet

Central Division

Paris Seat

DECISION
of the Court of First Instance of the Unified Patent Court
Central division (Paris seat)
issued on 29 May 2025
in the revocation action No. ACT_24460/2024
UPC_CFI_202/2024

HEADNOTES:

1. Article 57 'EPC', according to which "an invention shall be considered as susceptible of industrial application if it can be made or used in any kind of industry, including agriculture" must be interpreted as meaning that an invention or an application for a patent for an alleged invention which would not comply with the generally accepted laws of physics falls within its scope because it cannot be used and therefore lacks industrial application.

2. Drawings must always be used as explanatory aids for the interpretation of the patent claim but cannot be used to extract a characteristic when definitively and unambiguously contradicted by the description.

3. In the event that the patent proprietor applies to amend the patent and proposes more alternative auxiliary requests, these auxiliary requests must be addressed in the order indicated by the applicant, in the absence of specific elements and/or requests suggesting otherwise.

KEYWORDS: lack of industrial application; claim interpretation; auxiliary requests.

CLAIMANT:

Lindal Dispenser GmbH - Technology-Straße 2, 23923 Schönberg, Germany

represented by Véronique Pede and Camille Vansteenkiste, CAPE IP Law

DEFENDANT:

Rocep-Lusol Holdings Limited - Merlin House, Mossland Road, Hillington Park - G52 4XZ - Glasgow - GB

represented by (Philip) Matthew Dixon, Anna Hatt and Catherine Jewell, Beck Greener LLP, and François Herpe and Capucine Hamon, Cornet Vincent Ségurel

PATENT AT ISSUE:

European patent n° EP 3 655 346 B1

PANEL:

Panel 2

Presiding judge and judge-rapporteur	Paolo Catallozzi
Legally qualified judge	Tatyana Zhilova
Technically qualified judge	Paolo Ernesto Crippa

DECIDING JUDGE:

This order has been issued by the panel

SUMMARY OF FACTS AND PARTIES' REQUESTS:

1. On 7 May 2025 Lindal Dispenser GmbH filed a revocation action against Rocep-Lusol Holdings Limited before this Central Division, registered as No. ACT_24460/2024 UPC_CFI_202/2024, requesting the Court to revoke European Patent 3 655 346 B1 in its entirety for all designated Unified Patent Court ('UPC') contracting member states.

2. The patent at issue was filed by the defendant on 16 July 2018 and claims a priority of two patent applications of 17 July 2017 (GB20170011476) and 14 June 2018 (GB20180009774). The date of publication and mention of the grant of the patent is 22 December 2021. The patent has 15 claims, one of which is independent and 14 of which are dependent.

3. The patent relates to a pressure pack dispenser and particularly, but not exclusively, to a pressure pack dispenser for dispensing viscous materials from a container under pressure of a propellant. Its independent claim 1 reads as follows:
   "A pressure pack dispenser (100) for dispensing a product comprising:
   a container (401) for dispensing a product (402) therefrom, the container comprising a cylindrical container wall (401A), a lower end wall (407), and a product outlet (403) through which the product is dispensed, and
   a composite piston (408) movably mounted within the container and adapted to move from a first position adjacent the lower end wall (407) to a second position adjacent the outlet (403),

the composite piston comprising a first upper piston (409A), a second lower piston (409B) and a coupling means (411, 412), the coupling means movably coupling the first and second pistons to each other and permitting limited relative axial movement between the first and second pistons, the axial movement being in a substantially longitudinal direction parallel to the direction of movement of the composite piston,

the container wall (401A) and the first upper piston (409A) defining a product chamber within the container (401), whereby movement of the composite piston (408) within the container towards the outlet (403) expels product through the outlet,

the container wall (401A) and the second lower piston (409B) defining a propellant chamber containing a pressurised propellant (406),

wherein the composite piston (408) comprises a viscous sealant material (410) located in a piston sealant chamber (426) between the first and second pistons and adapted to be forced into engagement with the container wall (401A) by a compression force which acts between the first and second pistons to cause the second piston to move towards the first piston,

characterised in that:

the pressurised propellant (406) comprises a compressed gas which remains in the gaseous phase as the piston (408) moves from the first position to the second position,

and a clearance is provided between the second lower piston (409B) and the container wall (401A) which is filled with the viscous sealant material (410) during movement of the composite piston (408) within the container towards the outlet (403), the viscosity of the viscous sealant material and clearance being selected such that a thin film (410A) of viscous sealant material is left on the container wall (401A) of the propellant chamber as the composite piston moves within the container towards the outlet, thereby reducing the volume of viscous sealant material (410) in the piston sealant chamber (426) and reducing the friction force between the composite piston (408) and the container wall (401A)."

4. In the statement of claim the claimant argues that the patent is not valid because of the lack of: industrial application either with regard to claim 1 (and all the dependent claims) or with regard to solely claim 5); sufficiency of disclosure with regard to claim 1 (and any dependent claims) as well as claim 8 (and any of the claims depending on claim 8); novelty of claim 1 and of claims 2 to 4 and 11 to 14, both in view of WO 99/18010 (WO'010); inventive step of claims 5 to 10 and 15, of claim 1 and of claims 2 to 9 and 11 to 15, all assuming WO'010 as the closest prior art.

5. On 26 July 2024 the defendant lodged the defence to revocation. The defendant requested the Court reject the claimant's action and maintain the patent as granted; in the alternative, the patent be maintained on the basis of the claims of the first, second or third auxiliary requests filed therein.

6. With its reply to defence to revocation and defence to the application to amend the patent, filed on 30 September 2024, the claimant reiterated its request to revoke the patent at issue in its entirety for all designated Unified Patent Court contracting Member States on the grounds already submitted with the statement for revocation and also to decide that the amendments to the patent proposed by the defendant are not allowable as the invalidity of the patent is not remedied by any of them.

7. On 30 October 2024 the defendant lodged its rejoinder to the claimant's reply maintaining their previous requests.

8. After the closure of the written procedure an interim conference was held on 3 March 2025 in which the judge-rapporteur explored the possibilities to settle the dispute, without success, and identified certain main issues that needed to be addressed at the oral hearing with particular attention.

9. Finally, the oral hearing was held on 27 March 2025.

GROUNDS FOR THE DECISION:

Background.

10. It is not disputed between the parties that they had a long-standing business relationship. The claimant was granted a license by the defendant for several patents, amongst which WO 99/18010 (WO'010), that, according to the parties, forms the closest prior art from which the patent at issue was drafted. In October 2019 the defendant claimed that Lindal was infringing their additional international patent application PCT/GB2018/052010, which eventually led to the patent at issue and offered a license for this patent application. The claimant responded that the alleged infringing products (LinRoc®) existed before the priority dates of the claimant's patent application and denied any infringement. An infringement action filed by the defendant before the Court of Session in Edinburgh in December 2023 was dismissed.

The patent at issue.

11. As previously mentioned, the invention relates to a pressure pack dispenser and in particular, but not exclusively, to a pressure pack dispenser for dispensing viscous materials from a container under pressure of a propellant (see para. [0001]).

12. The patent acknowledges that a pressure pack dispenser is known from WO'010 (Exhibit 'A.1') which includes a valve mechanism fitted to a container which is refilled with a product, for example mastic or sealant, which is to be dispensed. A liquid propellant is provided in the container below a composite piston. Above the composite piston is the product to be dispensed, which can be introduced into the container by filling through the valve aperture. The liquid propellant is pressurised and "boils" at a low temperature, so that as the composite piston rises up the container and product is dispensed through the valve upon operation of the operating lever to open the valve, the pressure in the volume of the container below the composite piston remains substantially constant (para. [0002]).

13. This dispenser suffers from the disadvantage that the use of hydrocarbon-based liquid propellants such as HFC-134a or 1,1,1,2-tetrafluoroethane is being discouraged, as a result of environmental concerns (para. [0003]).

14. The patent claims to have found a solution by using a pressurised propellant, comprising a compressed gas, which remains in the gaseous phase as the piston moves from the first position to the second position. At the same time the solution guarantees that the product can continue to be dispensed at a constant or near-constant rate, reducing the effect of pressure drop when using compressed gas by reducing the friction force between the composite piston and the container wall. This reduction of the friction force is achieved by providing a clearance between the lower piston and the container wall and having a viscous sealant material squeezed therein.

Indeed, as the composite piston moves up the wall it leaves a film on the container wall that reduces the overall height of the composite piston and the contact area of the composite piston with the container wall (see para. [0006]).

15. In particular, the invention provides for: a dispenser, which includes a composite piston with a first upper piston, a second lower piston, a coupling means that allows limited axial movement between the two and a viscous sealant material that is located between the first and second pistons; a composite piston which is designed to travel from a first full position (furthest from the outlet, with the product chamber at its greatest volume) to a second exhausted position (closest to the outlet, with the propellant chamber at its greatest volume); a pressurized propellant comprising a compressed gas, which remains in the gaseous phase; a clearance between the second lower piston and the container wall, which is filled with the viscous sealant material as the piston moves so that a thin film of sealant is left on the container wall; a viscous sealant material, which, according to the dependent claims, can be a mixture of glycerine and starch with specific viscosity properties, allowing the piston to move effectively even at low propellant pressures.

16. As suggested by the claimant claim 1 of the patent at issue may be structured as follows:

(1.1) A pressure pack dispenser (100) for dispensing a product comprising:
(1.2) a container (401) for dispensing a product (402) therefrom, the container comprising a cylindrical container wall (401A), a lower end wall (407), and a product outlet (403) through which the product is dispensed, and
(1.3) a composite piston (408) movably mounted within the container and adapted to move from a first position adjacent the lower end wall (407) to a second position adjacent the outlet (403),
(1.4) the composite piston comprising a first upper piston (409A), a second lower piston (409B) and a coupling means (411, 412), the coupling means movably coupling the first and second pistons to each other and permitting limited relative axial movement between the first and second pistons, the axial movement being in a substantially longitudinal direction parallel to the direction of movement of the composite piston,
(1.5) the container wall (401A) and the first upper piston (409A) defining a product chamber within the container (401), whereby movement of the composite piston (408) within the container towards the outlet (403) expels product through the outlet,
(1.6) the container wall (401A) and the second lower piston (409B) defining a propellant chamber containing a pressurised propellant (406),
(1.7) wherein the composite piston (408) comprises a viscous sealant material (410) located in a sealant chamber (426) between the first and second pistons and adapted to be forced into engagement with the container wall (401A) by a compression force which acts between the first and second pistons to cause the second piston to move towards the first piston,

characterized in that

(1.8) the pressurised propellant (406) comprises a compressed gas which remains in the gaseous phase as the piston (408) moves from the first position to the second position, and

(1.9a) a clearance is provided between the second lower piston (409B) and the container wall (401A) which is filled with the viscous sealant material (410) during movement of the composite piston (408) within the container towards the outlet (403), the viscosity of the viscous sealant material and clearance being selected such that a thin film (410A) of viscous sealant material is left on the container wall (401A) of the propellant chamber as the composite piston moves within the container towards the outlet,

(1.9b) thereby reducing the volume of viscous sealant material (410) in the sealant chamber (426) and reducing the friction force between the composite piston (408) and the container wall (401A).

17. With regard to the interpretation of the claims, it must be borne in mind that: the patent claim is not only the starting point, but the decisive basis for determining the protective scope of the European patent; the interpretation of a patent claim does not depend solely on the strict, literal meaning of the wording used, as the description and the drawings must always be used as explanatory aids for the interpretation of the patent claim, but this does not mean that the patent claim serves only as a guideline and that its subject-matter may extend to what, from a consideration of the description and drawings, the patent proprietor has contemplated (see, Court of Appeal, order issued on 26 February 2024, UPC_CoA_335/2023).

18. The relative assessment must be carried out from the point of view of a person skilled in the art. Although the parties have not extensively addressed this issue, the expert in this technical field must be identified as a team of individuals experienced in mechanics, and particularly in fluid mechanics and the dynamics of non-Newtonian fluids in capillaries.

19. A few features need to be carefully examined both because the parties debated the interpretation of these features and, more fundamentally, because they relate to relevant aspects of the claimed invention.

20. Features (1.7) and (1.9a) must be interpreted together and disclose, respectively, a viscous sealant material (410) located in a piston sealant chamber (426) between the first and second pistons and adapted to be forced into engagement with the container wall (401A) by the compression force that pushes the second piston to move towards the first piston, and a clearance between the lower piston (409B) and container wall (401A) which is filled with viscous sealant (410) during piston movement towards the outlet, as the clearance is filled before product outlet opening.

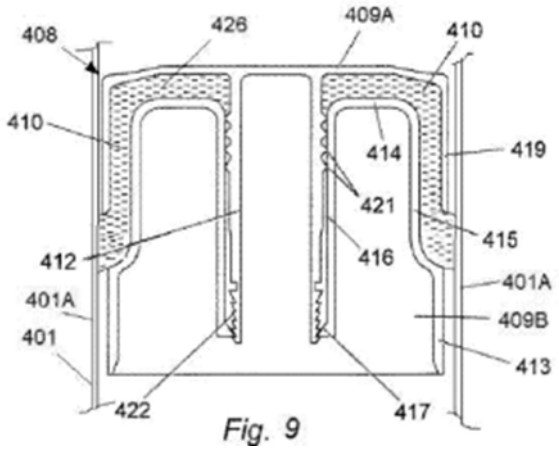

Fig. 9

21. The person skilled in the art would understand that the sealant material is pushed into the clearance as the second piston approaches the first due to the manufacturing process and that the sealant material is a non-Newtonian viscous material and, as such, the material's action in the capillary formed by the clearance gap (a "stick" effect created by this sealant material with the piston and can walls) does not allow the gas pressure to equalize with the propellant chamber pressure in the sealant chamber.

22. Indeed, para. [0051] explains that "The composite piston 138 is formed by squirting sealant (in this case a glycerine and starch mix) into the first piston 140a, then allowing the sealant to cool and placing the second piston 140b onto the first piston 140a. This is done prior to insertion of the composite piston 138 into the can 102. As the second piston 140b is fitted into the first piston 140a, the sealant is displaced within the cavity 144 formed between them. There is a minor "click" at this stage as the first and second pistons 140a, 140b engage each other. Then the piston assembly 138 is rammed up the can 102 to the boss 106 and as this occurs the two pistons 140a, 140b are forced together. There is another "click" as the pistons 140a, 140b then lock together by means of a clip mechanism 148 on the stems 142a, 142b. At this second click the sealant is displaced into the annular ring 146 to form a propellant-tight seal".

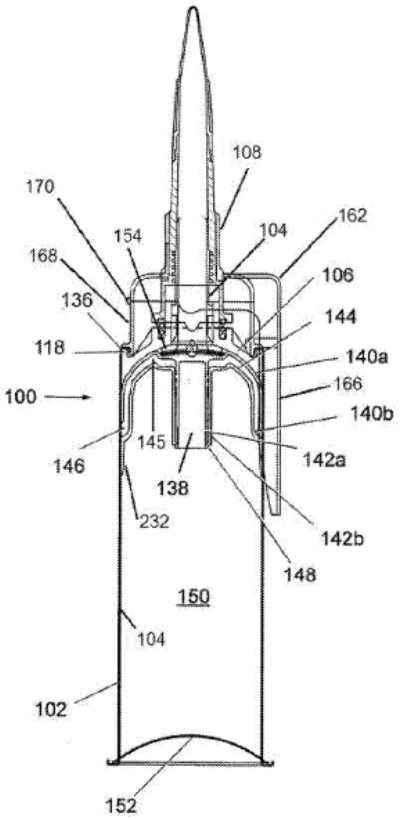

Fig. 1

23. This second "click" causes the sealant material to also enter the gap created by the clearance, when pressure is not yet applied to the composite piston. When the container is closed, all chambers (product chamber, sealant chamber, and propellant chamber) are in equilibrium. Differently, when the outlet is opened, the pressure in the product chamber decreases and the pressure of the propellant is applied, causing movement of the composite piston towards the

outlet. The presence of the viscous sealant material in the capillary formed by the clearance between the second lower piston and the container wall, which is filled with the viscous sealant material during movement of the composite piston within the container towards the outlet, causes the propellant pressure to encounter the resistance of the sealant material against the container wall. This resistance (the sealant sticks to the wall of the container creating a reaction to the propellant pressure) prevents the pressure in the sealant chamber from balancing the propellant chamber pressure, allowing the second piston to move towards the first piston and extruding the sealant material into a thin film along the container wall.

24. This phenomenon has also been shown in both the claimant's test (Exhibit 'F.13') and the defendant's test (Exhibit 'H.2').

25. Feature (1.8) discloses that the pressurised propellant (406) has to comprise a compressed gas which remains in the gaseous phase as the piston moves from the first position to the second position. The claimant argues that the term "compressed gas" is so broad that it also covers the vapour phase (which is a compressed gas) of a liquid propellant or a trace of air present in the propellant chamber during the filling of the propellant chamber with the propellant. The Court agrees with the claimant that the definition of "compressed gas" which remains in the gaseous phase as the piston moves from the first position to the second position does not exclude air traces present in the propellant chamber during its filling with liquid propellant, as disclosed in WO' 010.

26. The parties agree that the patent describes the invention starting from WO'010 as closest prior art and that features (1.1) to (1.7) of claim 1 are already known from it, hence the only features which are defined in the characterizing portion of claim 1 and which would thus distinguish the patent from WO'010 are consequently features (1.8) and (1.9a) and (1.9b). The Court finds this assessment correct.

Lack of industrial application of claim 1.

27. The claimant argues that independent claim 1 (and therefore also all the dependent claims 2-15), as well as claim 5 as a whole, are contrary to well-established laws of physics and thus not susceptible of industrial application, as the functioning of feature (1.7) together with feature (1.9) is technically impossible and contrary to the laws of physics.

28. The claimant asserts that when there is a clearance between the container wall and the lower piston as required by feature (1.9a), there cannot possibly be a compression force which acts between the first and the second pistons in accordance with feature (1.7) to cause the second piston to move towards the first piston in the pressure pack dispenser as claimed in claim 1. Moreover, due to this lack of compression force between the pistons, the lower piston shall not be caused to move towards the upper piston, so that the overall height of the composite piston and the contact area of the composite piston with the container wall will not be reduced, and therefore neither the friction force as required by feature (1.9b).

29. Article 57 'EPC' states that "an invention shall be considered as susceptible of industrial application if it can be made or used in any kind of industry, including agriculture". This provision is to be interpreted, in light of the case-law of the 'EPO' Board of Appeal (see, decision issued on 7 March 2001, T 0541/96), as meaning that an invention or an application for a patent for an

alleged invention which would not comply with the generally accepted laws of physics falls within its scope because it cannot be used and therefore lacks industrial application. In such a situation, also the description would be insufficient to the extent that the applicant would not be able to describe how it could be made to work.

30. According to the patent at issue, the dispensing apparatus comprises a container holding the product in a product chamber and a propellant chamber, separated by a composite piston. This composite piston consists of a first upper piston and a second lower piston, with a viscous sealant material located in a piston sealant chamber between them. The composite piston allows for limited relative axial movement between the upper and lower pistons, facilitated by a coupling means. When the apparatus is activated (by opening a valve at the product outlet), the pressurised compressed gas in the propellant chamber, exerting force on the lower piston, causes the composite piston to move towards the outlet. This movement reduces the volume of the product chamber, expelling the product.

31. Crucially, there is a clearance between the second lower piston and the container wall, which is previously filled with the viscous sealant material. As the composite piston moves, this sealant is forced into contact with the container wall, leaving a thin film of viscous sealant on the wall of the propellant chamber. This film lubricates the composite piston, reducing the friction between the composite piston and the container wall, and also reduces the volume of sealant in the piston sealant chamber. This reduction in friction helps to maintain a more consistent dispensing rate even as the propellant gas pressure decreases as the propellant chamber expands. The viscosity of the sealant and the size of the clearance are selected to achieve this effect.

32. The process of mounting the composite piston with the double click step, which presses the sealant onto the can wall, is described in para. [0051]. As previously stated, this description details how the sealant is initially placed between the two piston parts and then, through the mechanical engagement and locking during the assembly into the can, the sealant is forced into contact with the can wall, creating the necessary seal and lubrication. It is a clear consequence that at least during this second “click” step as the sealant is displaced with force, the sealant enters into the gap created by the clearance provided between the second piston and the container wall.

33. When the dispensing apparatus is assembled and when the outlet is closed, the dispensing apparatus is in equilibrium and the pressure in the propellant chamber, in the piston sealant chamber, and in the product chamber are equal. When the outlet is opened, the pressure of the product chamber decreases, and the prevailing pressure of the propellant pushes the composite piston to move towards the outlet.

34. The sealant, due to its viscosity, sticks to the wall of the container and therefore, during the movement of the composite piston, creates a friction action that, in the capillary formed between the second piston and the container wall, creates a pressure drop between the propellant chamber and the piston sealant chamber. This pressure difference (between the propellant chamber and the sealant chamber) allows the second piston to move closer to the first piston and reduce the volume of the propellant chamber, which in the meantime has left a thin film of sealant on the wall of the container. This describes the initial equilibrium of the

dispenser and the events following the opening of the outlet, in particular the sealant's adhesive property and the resulting pressure dynamics within the apparatus.

35. This understanding aligns with the functioning of the composite piston and sealant described in the patent, particularly the role of the viscous sealant in creating a film on the container wall and influencing the movement of the piston components. The double click step during mounting ensures the initial placement and compression of this sealant. The clearance between the second lower piston and the container wall is also relevant to the formation of this capillary and the pressure drop during the composite piston and particularly the second piston movement.

36. It must be concluded that the specific clearance between the second lower piston and the container wall, filled with a viscous sealant material, can be reliably produced and function as described, as claim 1 specifies the characteristics of this clearance and the sealant's viscosity and, therefore, enables a skilled person to implement the invention.

37. Furthermore, the defendant submitted a video (Exhibit 'H.2') which demonstrates a composite piston propelled by compressed air, leaving a film of viscous sealant (honey) and shows the operating principle of the invention and that this invention is workable. It is important to note that apparently the claimant also obtained, with a similar setup to the defendant's, a test that shows the operation of the double piston that leaves a film of sealant material on the container wall (as shown by the video of Exhibit 'F.13').

38. With regard to the video of Exhibit 'H.2', the claimant objects that they cannot remedy the lack of industrial applicability (as well the insufficiency of disclosure of the invention) as these constitute post-published evidence and relies on the principles set under the decision of the Enlarged Board of Appeal of the European Patent Office issued on 23 March 2023, case G 2/21, according to which in order to meet the requirement that the disclosure of the invention be sufficiently clear and complete for it to be carried out by the person skilled in the art, the proof of a claimed technical effect has to be provided in the application as filed.

39. This ruling does not appear to be relevant as the cited principles refers to a situation in which, in the absence of experimental data, it would not be credible to the skilled person that the claimed technical effect is achieved. This is not the situation at hand.

40. For the foregoing, it must be stated that the invention meets the criteria for industrial applicability under Articles 57 and 138 (1) (a) of the European Patent Convention ('EPC'); therefore, the defendant's main request must be rejected.

Lack of industrial application of claim 5.

41. Claim 5 reads as follows: "The pressure pack dispenser of claim 4, wherein in the second exhausted position the mixture of a liquid propellant and a compressed gas are at a pressure equal to the vapour pressure of the liquid propellant". The dispenser of claim 4 consists of "The pressure pack dispenser (100) of claim 1, wherein the composite piston (408) is arranged to travel from a first full position when the composite piston is at a position furthest from the outlet (403) and the product chamber has its greatest volume to a second exhausted position when the composite piston is at a position closest to the outlet (403) and the propellant chamber has its greatest volume. the pressurised propellant (406) is a mixture of a liquid propellant and a compressed gas, and in the first full position the mixture of a liquid propellant and a compressed

gas is at a pressure greater than the vapour pressure of the liquid propellant, and the compressed gas is in the gaseous phase".

42. The claimant argues that claim 5 is not susceptible of industrial application considering that in the second exhausted position the mixture of liquid propellant and compressed gas will never be at a pressure equal to the vapour pressure of the liquid propellant. The claimant points out that if sufficient liquid propellant is used, the pressure of the mixture of the liquid propellant and the compressed gas will always be higher than the vapour pressure of the liquid propellant in the second exhausted position and thus never be equal to this vapour pressure.

43. The Court agrees with the claimant. Indeed, when the movement of the composite piston stops, the volume of the propellant chamber remains constant, and the pressure of the gas prevents further evaporation of the liquid. The liquid can no longer transition to a gaseous state, and its phase transformation ceases. Consequently, the pressure of the gas cannot remain as it was during the movement of the composite piston, and therefore, it is not possible for it to be equal to the vapour pressure of the liquid in this static exhausted position.

44. Therefore, claim 5 does not meet the criteria for industrial applicability under Articles 57 and 138 (1) (a) 'EPC' and must be considered as invalid.

First Auxiliary request.

45. As the patent cannot be maintained as granted because claim 5 lacks industrial application and, as such, is invalid in respect to the requirements of Article 57 'EPC', the Auxiliary requests filed by the defendant must be addressed.

46. The Court is of the opinion that these Auxiliary requests must be addressed in the order indicated by the defendant, in the absence of specific elements and/or requests suggesting otherwise.

47. The first Auxiliary request amends claim 1 rewriting feature (1.8) in the following way: "The pressurised propellant (406) comprises only a compressed gas which remains in the gaseous phase as the piston (408) moves from the first position to the second position". By doing that the features of granted claim 10 are included in claim 1.

48. Consequently, claims 4 to 7, 10 and 11 of the granted patent are deleted and the dependent claims are renumbered and amended accordingly.

First Auxiliary request. A) In general.

49. The First Auxiliary Request substantially reduces the scope of the claim 1 (and all the dependent claims) by specifying that the pressurised propellant (406) comprises only a compressed gas. Furthermore, it deletes granted claim 5. As such, it is capable of overcoming the above-identified ground for invalidity.

First Auxiliary request. B) Lack of sufficiency of disclosure of claim 1.

50. The claimant argues that claim 1 (and all the dependent claims) lacks sufficiency of disclosure and points out that in the patent only two examples are given, namely a first example in paras. [0095] to [0099] and a second example in paras. [0100] to [0102], but none of them disclose anything about the presence of a clearance between the lower piston and the container wall;

therefore, these examples cannot be considered as examples of the pressure pack dispenser as claimed in claim 1.

51. The claimant further notes that only some ranges are given for the viscosity of the viscous sealant material and for the size of the clearance between the lower piston and the container wall, but no working combinations thereof. The claimant adds that some experiments have been conducted in accordance with the above disclosures to prove that these disclosures are not sufficiently clear and complete for the invention to be carried out by a person skilled in the art and refers to Exhibits 'F1' to 'F5' concerning some experiments conducted with two different clearances between the lower piston and the container wall and two different viscosities of the sealant material.

52. The Court notes that Article 83 'EPC' requires that the patent application must disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. Since the application is addressed to the skilled person, it is neither necessary nor desirable to give details of well-known ancillary features. However, the description must disclose any feature essential for carrying out the invention in sufficient detail to make it apparent to the skilled person how to put the invention into practice without undue burden. The Court is of the opinion that several paragraphs of the patent at issue discloses the clearance dimensions (see paras. [0038], [0052] and [0078]).

53. Claimant's test 'F.1' aims to demonstrate the conflict between features (1.7) (piston compression forcing sealant) and (1.9b) (clearance allowing sealant film). It tested two clearances (0.165 mm and 0.875 mm) and two sealant viscosities (84.177 cP and 326.875 cP). Results showed sealant left the chamber, but no compression force moved the lower piston towards the upper one. Consequently, the expected friction reduction (1.9b) was not achieved. The test also shows gas cavity formation and potential gravity leakage. The defendant contests the set-up of these tests and therefore the outcomes. The Court notes that both parties have clearly reproduced the essential functioning of claim 1, through the selection of a sealant and clearance allowing a composite piston to move and leave a film of sealant on the container wall, as it is shown by the testing conducted by them.

54. In particular, both Exhibit 'H.2', submitted by the defendant, and Exhibit 'F.13', submitted by the claimant, shows the operation of the double piston system in accordance with the description and claim 1 (feature 1.9b). These demonstrations allegedly involved the compressed air propelling the double piston up the cylindrical tube, compressing the space between the upper and lower pistons, and leaving a film of sealant on the container wall.

55. The fact that these results were obtained without lamenting any particular effort or repeated and very numerous attempts suggests that the skilled person could readily achieve the functioning described in claim 1 by following the patent specification: this supports the opinion of the Court on the debated issue.

First Auxiliary request. C) Lack of sufficiency of disclosure of original claim 8 (claim 4 in the amended version).

56. Original claim 8, now claim 4 as amended in the First Auxiliary request, reads as follows: "The pressure pack dispenser of claim 1, wherein

the pressurised propellant (406) comprises a compressed gas which remains in the gaseous phase as the piston (408) moves from the first position to the second position,
the viscous sealant material (410) comprises a mixture of glycerine or an equivalent liquid barrier material and starch or an equivalent filler material,
the viscous sealant material (410) has a viscosity of less than 10.0 Pa.s (100 poise), preferably less than 5.0 Pa.s (50 poise), at 100°C, and
the viscous sealant material (40) has a viscosity of less than 400 Pa.s (4000 poise), preferably less than 200 Pa.s (2000 poise), at 20°C.".

57. The claimant argues that the patent does not disclose a specific method that the skilled person should use to measure the viscosity of the starch/glycerine mixture at 20°C and at 100°C and, in particular, that it does not disclose how the minimum viscosity required to form the thin film onto the container wall through the clearance between the lower piston and the container wall can be achieved with a mixture of starch and glycerine.

58. The Court does not agree with the claimant.

59. Claim 8 must be interpreted in light of the patent description, particularly the examples provided in paras. [0095] and [0096] and [0100] and [0101] which describe how to prepare the viscous sealant material from glycerine and starch; from this it can be argued that the possibility of a person skilled in the art reproducing these features of the invention is demonstrated.

60. According to the patent, heating the glycerine and starch mixture breaks down the starch structure into a mixture for which shear rate considerations is easy to evaluate for example with any standard test like a falling sphere viscometer. This suggests that the skilled person, following the preparation methods outlined in the examples, would be able to obtain a viscous sealant material with the characteristics defined in claim 8.

First Auxiliary request. D) Lack of novelty of claim 1 in view of WO'010.

61. The claimant argues that all the features of claim 1 are disclosed in WO'010.

62. It must be borne in mind that, for the purpose of the application of Article 54 (1) 'EPC', an invention is to be considered part of the state of the art when it is found clearly integrally, directly and unambiguously in one single piece of prior art and it is identical in its constitutive elements, in the same form, with the same arrangement and the same features (see Munich LD, decision issued on 31 July 2024, UPC_CFI_233/2023).

63. This issue is to be addressed from the vantage point of the notional skilled person, taking into account this person's common general knowledge at the publication date of the cited document in the case of prior art cited under Article 54 (2) 'EPC' (see Düsseldorf LD, decision issued on 28 January 2025, UPC_CFI_335/2023).

64. In the current proceedings, it is accepted by both parties that features (1.1) to (1.7) are known from WO'010.

65. With regard to feature (1.8) of the granted patent the claimant argues that this feature is not novel considering that the term "compressed gas" in (the original) claim 1 also encompasses the vapour phase of a liquid propellant which was already known from WO'010, and that this prior

art already implicitly discloses a mixture of a compressed gas and a liquid propellant and thus "a pressurised propellant that comprises a compressed gas".

66. The Court agree with the claimant's argument.

67. With regard to feature (1.9), the claimant contends that this feature is also not novel over WO'010, arguing that it is disclosed within Figures 17 and 18 of WO'010. According to the claimant, these drawings show that the lower piston's diameter is inherently smaller than the inner diameter of the container, thus implying a clearance.

68. The defendant disputes this, arguing that Figure 14 of WO'010 shows the piston in contact with the container wall and that Figures 17 and 18 do not even show the container. The defendant also argues that drawings cannot be used to definitively extract a characteristic, especially when contradicted by the description.

69. The Court states that while drawings must always be used as explanatory aids for the interpretation of the patent claim, they cannot be used to extract a characteristic when definitively and unambiguously contradicted by the description and not supported by the claim.

70. In respect of this, the Court notes that WO'010, at page 23, lines 14 and 15, describes contact between the piston and the container wall and that no disclosure of a clearance is conceivable in the claims. Therefore, the feature of a "clearance" between the second piston and the container wall is not disclosed by WO'010 and hence, feature (1.9) has to be considered as novel in respect of this prior art.

71. Furthermore, the Court notes that the parties agree that the LinRoc® dispenser, which does not disclose any clearance between the lower piston and the container wall, but conical pistons in contact with the container wall, is made exactly according to WO'010. This confirms the reported interpretation of WO'010.

72. Adding the feature of claim 10 (i.e.: "the pressurised propellant (406) comprises only a compressed gas which remains in the gaseous phase as the piston (408) moves from the first position to the second position") into claim 1 further limits its scope; consequently, the amened claim 1 of the First Auxiliary Request must be considered novel.

73. Therefore, claim 1 of the First Auxiliary request is novel in view of the cited prior art disclosure WO'010 and consequently, all the claims depending on claim 1 are novel.

First Auxiliary request. E) Lack of novelty of claims 2 to 4 and 11 to 14 in view of WO'010.

74. The unfoundedness of the ground for revocation of claim 1 for lack of novelty in view of WO'010 leads necessarily to the dismissal also of the similar ground for revocation filed with regard to the original dependent claims 2, 3 and 12 to 14, while original claim 4 and 11 are deleted and, for this reason, attacks against them are no longer relevant.

First Auxiliary request. F) Lack of inventive step of claim 1.

75. The claimant argues that claim 1 lacks an inventive step over WO'010 combined with the FEA publication (Exhibit 'B.4').

76. The Court notes that the assessment of the inventive step must be carried out in the light of Article 56 'EPC' according to which 'An invention shall be considered as involving an inventive step if, having regard to the state of the art, it is not obvious to a person skilled in the art'. Hence, it is necessary to determine whether, given the state of the art, a person skilled in the art would have obtained the technical solution claimed by the patent using their technical knowledge and carrying out simple operations. Inventive step is defined in terms of the specific problem encountered by the person skilled in the art (see, Paris LD, decision issued on 3 July 2024, UPC_CFI_230/2023).

77. In order to assess whether or not a claimed invention is obvious to a person skilled in the art, it is first necessary to determine one or more teachings in the prior art that would have been of interest to a person skilled in the art who, at the priority date of the patent in suit, was seeking to develop a product or process similar to that disclosed in the prior art. Then, it must be assessed whether it would have been obvious for the skilled person to arrive at the claimed solution of the underlying technical problem on the basis of a realistic disclosure of the selected prior art (see, Munich CD, decision issued on 17 October 2024, UPC_CFI_252/2023; Dusseldorf LD, decision issued on 10 October 2024, UPC_CFI_363/2023).

78. As already mentioned, the problem solved by the claimed solution consists of reducing the environmental impact caused by the use of liquid propellants in the pressure pack dispenser disclosed by WO'010 while maintaining the product dispensing at a constant or near-constant rate.

79. The Court agrees with the parties that WO'010 is a suitable starting point, having regard to the similarity of the structural and functional features of this invention and the one encompassed by the patent at issue and the fact that, as both parties acknowledged, the invention claimed originates from this prior art document.

80. Given this background, the underlying problem of the invention is solved by using a pressurised propellant (406) comprising only a compressed gas which remains in the gaseous phase [feature (1.8)] and providing the dispenser with "a clearance is provided between the second lower piston (409B) and the container wall (401A)", so that the friction force between the composite piston (408) and the container wall (401A) is reduced [feature (1.9)].

81. The combination of the use of only a compressed gas propellant with the clearance provided between the second piston and the container wall determines a synergistic effect of creating a sealant film on the container wall which reduces friction while maintaining a seal and mitigates the rapid pressure drop of the compressed gas during the expansion of the propellant chamber. This is not disclosed or rendered obvious by the claimant's cited prior art documents; indeed, these documents provide no guidance on solving the technical problem by using a compressed gas propellant and maintaining the product dispensing at a constant or near-constant rate by providing the dispenser with this clearance at the preferred location.

First Auxiliary request. G) Lack of inventive step of original claims 5 to 10 and 15 and of original claims 2 to 9 and 11 to 15, when combined with original claims 1 and 10.

82. As a result of the assessment on the ground of the lack of inventive step of claim 1 of the First Auxiliary request, all challenges based on the lack of inventive step filed with regard to the dependent claims relying on this inventive claim 1 must be disregarded.

Final conclusions.

83. For these reasons, the grounds of invalidity raised by the claimant against the patent at issue, as amended by the First Auxiliary request submitted on 26 June 2024, are unfounded and any arguments of the parties which have not been specifically addressed, included the validity of the further Auxiliary Requests submitted by the defendant must be deemed absorbed.

84. Therefore, the patent EP '399 shall be maintained in the amended version (First Auxiliary request), which reads as follows:

"1. A pressure pack dispenser (100) for dispensing a product comprising:
a container (401) for dispensing a product (402) therefrom, the container comprising a cylindrical container wall (401A), a lower end wall (407), and a product outlet (403) through which the product is dispensed, and
a composite piston (408) movably mounted within the container and adapted to move from a first position adjacent the lower end wall (407) to a second position adjacent the outlet (403),
the composite piston comprising a first upper piston (409A), a second lower piston (409B) and a coupling means (411, 412), the coupling means movably coupling the first and second pistons to each other and permitting limited relative axial movement between the first and second pistons, the axial movement being in a substantially longitudinal direction parallel to the direction of movement of the composite piston,
the container wall (401A) and the first upper piston (409A) defining a product chamber within the container (401), whereby movement of the composite piston (408) within the container towards the outlet (403) expels product through the outlet,
the container wall (401A) and the second lower piston (409B) defining a propellant chamber containing a pressurised propellant (406),
wherein the composite piston (408) comprises a viscous sealant material (410) located in a piston sealant chamber (426) between the first and second pistons and adapted to be forced into engagement with the container wall (401A) by a compression force which acts between the first and second pistons to cause the second piston to move towards the first piston,
characterised in that:
the pressurised propellant (406) comprises only a compressed gas which remains in the gaseous phase as the piston (408) moves from the first position to the second position, and
a clearance is provided between the second lower piston (409B) and the container wall (401A) which is filled with the viscous sealant material (410) during movement of the composite piston (408) within the container towards the outlet (403), the viscosity of the viscous sealant material and clearance being selected such that a thin film (410A) of viscous sealant material is left on the container wall (401A) of the propellant chamber as the composite piston moves within the container towards the outlet, thereby reducing the volume of viscous sealant material (410) in the piston sealant chamber (426) and reducing the friction force between the composite piston (408) and the container wall (401A).

2. The pressure pack dispenser of claim 1, wherein the compressed gas (406) is selected from air, nitrogen, nitrous oxide and carbon dioxide.

3. The pressure pack dispenser of any preceding claim, wherein the first position of the composite piston (408) is a full position in which the composite piston is at a position furthest from the outlet (403) and the product chamber has its greatest volume, and wherein the second position of the composite piston is an exhausted position in which the composite piston is at a position closest to the outlet (403) and the propellant chamber has its greatest volume.

4. The pressure pack dispenser of claim 1, wherein
the viscous sealant material (410) comprises a mixture of glycerine or an equivalent liquid barrier material and starch or an equivalent filler material,
the viscous sealant material (410) has a viscosity of less than 10.0 Pa.s (100 poise), preferably less than 5.0 Pa.s (50 poise), at 100°C, and
the viscous sealant material (40) has a viscosity of less than 400 Pa.s (4000 poise), preferably less than 200 Pa.s (2000 poise), at 20°C.

5. The pressure pack dispenser of claim 4, wherein the viscous sealant material (410) comprises between 50% and 85% glycerine by mass and between 15% and 50% starch by mass.

6. The pressure pack dispenser of any preceding claim, wherein the piston sealant chamber (426) is open circumferentially.

7. The pressure pack dispenser of any preceding claim, wherein the second lower piston (202) is provided with a spacer member (230) which projects towards the lower end wall (218, 407) and, when the composite piston is in the first position, serves to space the composite piston from the lower end wall to provide a minimum volume of the propellant chamber.

8. The pressure pack dispenser of claim 137, wherein the minimum volume of the propellant chamber is at least 10% of the maximum volume of the propellant chamber, the maximum volume occurring when the composite piston (408) is in the second exhausted position.

9. The pressure pack dispenser of any preceding claim, wherein the second lower piston (409B) comprises a lower cylindrical portion or skirt (413) having an external diameter less than the internal diameter of the container wall (401A), thereby forming an annular clearance between the cylindrical portion (413) and the container wall (401A) of between 0.1 mm and 1 mm.”.

Costs.

85. As the revocation action was dismissed because the defendant submitted a limitation of the patent during the proceedings, the panel deems it appropriate that the costs of the Court and of the parties shall be borne by the claimant, in the amount of 70%, and by the defendant, in the amount of 30%.

86. The Court notes that during the interim conference, the value of the revocation action for the purpose of applying the scale of ceilings for recoverable costs is set at 1,400,000.00 euros and confirms this evaluation.

DECISION

The Court,

a) rejects the revocation action filed by Lindal Dispenser GmbH on 7 May 2024;

b) maintains European patent n° EP 1 552 399 as amended by the First Auxiliary request submitted on 26 July 2024;

c) orders that the Registry shall send a copy of this decision to the European Patent Office and to the national patent office of any Contracting Member States concerned, after the deadline for appeal has passed;

d) orders that the costs of the proceedings shall be borne by the claimant in the amount of 70%, and by the defendant for the remaining fraction.

Issued on 29 May 2025.

The presiding judge and judge-rapporteur

Paolo Catallozzi

Paolo Catallozzi
Firmato digitalmente da Paolo Catallozzi
Data: 2025.05.30 09:12:06 +02'00'

The legally qualified judge

Tatyana Zhilova

Tatyana Zhilova
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The technically qualified judge

Paolo Ernesto Crippa

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The clerk

Margaux Grondein

Unified Patent Court
Einheitliches Patentgericht
Juridiction unifiée du brevet

Signature numérique de MARGAUX MARIE-ANGE GRONDEIN

ORDER DETAILS

Order no. ORD_69115/2024 in ACTION NUMBER: ACT_24460/2024
UPC number: UPC_CFI_202/2024
Action type: Revocation Action
Related proceeding no. Not provided Not provided
Not provided Not provided