Unified Patent Court
Einheitliches Patentgericht
Juridiction unifiée du brevet

UPC - Court of Appeal
UPC_CoA_297/2024
APL_32012/2024

ARRANGEMENT

of the Court of Appeal of the Unified Patent Court
issued on 3 December 2024
in the proceedings for interim measures

GUIDELINES:
On balance of probabilities, it is not more likely than not that the patent will be infringed (i.e. the court is not reasonably satisfied that it is more likely than not that the patent will be infringed).

KEYWORDS:
Evidence, provisional measures

APPELLANTS (AND DEFENDANTS IN THE MAIN PROCEEDINGS BEFORE THE CFI)

1. **SharkNinja Europe Limited**, Leeds, Great Britain
2. **SharkNinja Germany GmbH**, Frankfurt am Main, Germany

(hereinafter jointly referred to as "SharkNinja");

both represented by: Attorney Wolrad Prinz zu Waldeck und Pyrmont, Advocate/Solicitor Dr Christopher Stothers, Attorney Kilian Seidel and Attorney Caroline Horstmann (Freshfields Bruckhaus Deringer, Düsseldorf, Germany)

APPELLANT (AND PLAINTIFF IN THE MAIN PROCEEDINGS BEFORE THE CFI)

Dyson Technology Limited, Malmesbury, Wiltshire, Great Britain
(hereinafter referred to as "Dyson")

Represented by: Lawyers Dr Constanze Krenz, David Kleß and Joschua Fiedler (DLA Piper, Munich, Germany)

LANGUAGE OF THE PROCEEDINGS
German

PANELS AND DECIDING JUDGES:

Second panel:
Rian Kalden, presiding judge and legally qualified judge
Ingeborg Simonsson, legally qualified judge and rapporteur
Patricia Rombach, legally qualified judge
Graham Ashley, technically qualified judge
Max Tilmann, technically qualified judge

CONTESTED ORDER OF THE COURT OF FIRST INSTANCE

- Date: 21 May 2024, Local Chamber Munich
- Reference number of the Court of First Instance: UPC_CFI_443/2023; ACT_589207/2023

POINTS OF CONTENTION:

Application for interim measures (R.220.1 VerfO, R.212.3 VerfO, R.197.3 VerfO and R.197.4 VerfO)

DISPOSAL PATENT EP 2 043 492

ORAL HEARING ON

31 October 2024 (held in English with the consent of the parties) STATEMENT OF THE

PARTIES' PROPOSALS

The patent of disposition

1. Dyson is the registered proprietor of European patent EP 2 043 492, which relates to a "hand-held cleaning device" ("the disposition patent" or "the patent"). The patent application was filed on 6 July 2007 and the application was published on 8 April 2009. The publication date and the announcement of the grant of the patent were 21 September 2011. It is in force in Germany and France, among other countries.

2. Claim 1 has the following content:

   A hand-held vacuum cleaner (10) comprising a suction conduit (14) having a longitudinal axis, an airflow generator (36) for generating an airflow along the suction conduit, cyclonic separating apparatus (18) arranged in communication with the suction conduit (14) for separating dirt and dust from the airflow, a power source (32) for supplying power to the airflow generator (36) and an elongate handle (28) characterised in that the elongate handle (28) is disposed between the airflow generator (36) and the power source (32) and dimensioned and arranged to be gripped by a user's hand, wherein the elongate handle (28) lies transverse to the longitudinal axis of the suction conduit (14) and the cyclonic separating apparatus (18) is positioned between the suction conduit (14) and the elongate handle (28).

3. In the German translation, claim 1 reads as follows:

   A hand-held hoover (10) comprising a suction duct (14) having a longitudinal axis, an air flow generator (36) for generating an air flow along the suction duct, a cyclone (36) for generating an air flow along the suction duct, and a cyclone (36) for generating an air flow along the suction duct.

A separator device (18) arranged in communication with the suction duct (14) to separate dirt and dust from the airflow, comprising a power source (32) to power the airflow generator (36), and an elongate handle (28), characterised in that that the elongate handle (28) is disposed between the air flow generator (36) and the power source (32) and is sized and arranged to be gripped by a hand of a user, the elongate handle (28) being transverse to the longitudinal axis of the suction duct (14) and the cyclone separator (18) being disposed between the suction duct (14) and the elongate handle (28).

4. Dyson has proposed to structure the claim as follows:

1. a hand-held vacuum cleaner (10)	1. hoover held in the hand (10),
1.1 comprising a suction conduit (14) having a longitudinal axis	1.1 which has a suction channel (14) with a longitudinal axis,
1.2 an airflow generator (36) for generating an airflow along the suction conduit,	1.2 an air flow generator (36) to generate an air flow along the suction channel,
1.3 cyclonic separating apparatus (18) arranged in communication with the suction conduit (14) for separating dirt and dust from the airflow,	1.3 a cyclone separator (18) arranged in connection with the suction duct (14) to separate dirt and dust from the air flow,
1.4 a power source (32) for supplying power to the airflow generator (36) and	1.4 an energy source (32) to supply the air flow generator (36) with energy, and
1.5 an elongate handle (28) characterised in that	1.5 comprises an elongated handle (28), characterised in that
1.5.1 the elongate handle (28) is disposed between the airflow generator (36) and the power source (32) and	1.5.1 the elongated handle (28) between the airflow generator (36) and the energy source (32) is arranged and
1.5.2 dimensioned and arranged to be gripped by a user's hand,	1.5.2 is dimensioned and arranged to be gripped by a user's hand,
1.5.3 wherein the elongate handle (28) lies transverse to the longitudinal axis of the suction conduit (14) and	1.5.3 wherein the elongated handle (28) lies transverse to the longitudinal axis of the suction channel (14) and
1.5.4 the cyclonic separating apparatus (18) is positioned between the suction conduit (14) and the elongate handle (28).	1.5.4 the cyclone separator (18) is arranged between the suction channel (14) and the elongated handle (28)

The contested embodiments

5. SharkNinja has offered on its German and French websites handheld hoovers of the Shark Detect Pro model series with (IW3611EN/EU) and without (IW1611EN/EU) automatic emptying base station as well as the cordless hoover Shark with Powerfins Plus technology (BU1120DE) (hereinafter "the attacked embodiments").

The disputed order

6. Dyson has filed an application for interim measures against SharkNinja with the Munich Local Court.

7. The Munich Local Chamber ordered the following:

I. The defendants are ordered by way of an interim injunction to refrain from the following in the territory of the Federal Republic of Germany and/or the territory of the French Republic

a hand-held hoover (10) comprising a suction duct (14) having a longitudinal axis, an airflow generator (36) for generating an airflow along the suction duct, a cyclone separator (18) disposed in communication with the suction duct (14) for separating dirt and dust from the airflow, a power source (32) for energising the airflow generator (36), and an elongate handle (28), characterised in that the elongate handle (28) is disposed between the airflow generator (36) and the power source (32) and is sized and arranged to be grasped by a hand of a user, the elongate handle (28) being transverse to the longitudinal axis of the suction duct (14) and the cyclone separator (18) being disposed between the suction duct (14) and the elongate handle (28),

(claim 1 of EP 2 043 492)

and/or supply, in particular when this happens as with the hand-held hoovers with the model numbers IW3611EU, IW3611DE, IW1611EU, IW1611DE and/or BU1120DE.

II. For each individual case of non-compliance with the order under I., the respective defendant must pay the court a (possibly repeated) penalty payment of up to EUR 250,000.00.
III. The parties shall each provisionally bear their own costs of the proceedings to order interim measures.
IV. In all other respects, the applications of the parties are rejected.
V. This order is effective and enforceable immediately.
VI. This preliminary injunction will be revoked or otherwise set aside at the request of the defendants, without prejudice to any claims for damages, if the applicant does not initiate proceedings on the merits before the Unified Patent Court within a period of 31 calendar days or 20 working days, whichever is longer, from 21 May 2024.

8. The Local Board was of the opinion that Dyson had treated the matter with the necessary urgency. When interpreting feature 1.3 of patent claim 1, the

Local division with reference to the prior art document cited in the patent description US 2002/0189048A (US 048) concluded that the person skilled in the art could not use the feature "cyclone separation device" of patent claim 1 in such a way that the separation device is not limited to a tangential air inlet. Rather, the claim was to be interpreted functionally as encompassing any such vortex flows which enabled separation of particles by means of centrifugal force and was not limited to a two-stage configuration of the cyclone separator. With regard to feature 1.5.3, the Local Board concluded that it was basically sufficient for the X-axis to intersect with the Y-axis at any point and that a pistol-like grip option was provided. With regard to feature 1.5.4, the word
In the opinion of the local chamber, "between" is to be understood as the usual arrangement along a line,
i.e. as a usual arrangement of the cyclone separator between the suction channel and the handle along a line. Accordingly, feature 1.5.4 was to be understood as a spatial physical arrangement of the suction channel, cyclone separator and handle; neither the wording nor the description indicated that these components had to lie on an axis. The Local Board came to the conclusion that the contested embodiments were not covered by features 1.3,
1.5.3 and 1.5.4 and therefore infringe the patent in suit (the other features were undisputed).

9. The local chamber examined the following state of the art with regard to the legal status:
- DE 1 863 708 U (13.12.1962) (Gimelli or FBD 8)
- GB 2 298 572 (GB 572 or FBD 9)
- JP 54-027573 U (JP 573 or FBD 10)
- FR 1 508 452 A1 (FR 452, D2 or FBD 11)
- Extract from the Museum of Design in Plastics in Great Britain: Pifco Vacette
https://www.modip.ac.uk/artefact/aibdc-007361 (Pifco Vacette or FBD 24)
- KR 2000-0067144A - 2000 (KR 144 or FBD 12)
- GB 2 035 787 A (GB 787 or FBD 13),
was of the opinion, however, that none of the combinations cited by SharkNinja could call into question the legal validity of the patent in suit with the required degree of proof, nor could the other combinations cited by SharkNinja (for the combinations cited by SharkNinja, see paragraph 24 below).

10. The adoption of interim measures was considered necessary to prevent the continuation of the infringement and/or at least to prevent the threat of further infringement and in any event was considered necessary in view of the harm caused to Dyson by the products offered by SharkNinja.

The appeal

11. SharkNinja has appealed and requested that the contested order be cancelled and that Dyson be ordered to pay the costs of the proceedings.

12. Dyson requests that the appeal be dismissed and the order of the Court of First Instance upheld.

Summary of SharkNinja's arguments in the appeal proceedings

13. SharkNinja's grounds of appeal are summarised and, where relevant, are as follows:

- The challenged embodiments did not infringe the patent in suit. The contrary view of the first instance decision was based, on the one hand, on errors of law in the interpretation of the claims and, on the other hand, on an incorrect assessment of the evidence (the video material submitted by the parties).
- The claim design of the local chamber is incorrect, both in relation to the cyclone separator according to feature 1.3 and to the spatial arrangement of the components according to features 1.5.3 and 1.5.4.
- The contested embodiments would not realise feature 1.3, as they do not include a tangential air inlet or a swirl generator, there is no tangential spiral movement of the air along the circumference of the inner wall, there is no centrifugal force-induced pressing of dust and dirt particles against the inner wall of the device and there is also no collection area for dust and dirt particles.
- In contrast to the arrangement at first instance, feature 1.5.3 was not realised by the fact that the longitudinal axis of the suction channel was intersected by the axis of the elongated handle. The realisation of feature 1.5.4 is excluded because the contested embodiments are based on the principle of filter separation and therefore do not have a cyclone separation device. Furthermore, the dust chamber, which according to the (incorrect) opinion of the local chamber is the cyclone separator is not arranged "between" the suction channel and the elongated handle, if the correct interpretation, according to which this must lie on an axis, is applied.
- The local division made an incorrect assessment of the legal validity of the patent in suit (see below under II - Legal validity). In addition, it based its assessment of the sufficiently certain legal validity of the patent in suit, and in particular the inventive step, on an incorrect standard of assessment. In particular, it wrongly assumed that the large number of possible combinations of different prior art documents indicated that the required inventive step could be assumed.
- The local division's assessment of the urgency of the case was incorrect and there were no statements in the local division's order on the necessity of ordering interim measures.

14. In the grounds of appeal, SharkNinja argued that the local division had not granted SharkNinja a sufficient hearing in the oral proceedings and had thus violated SharkNinja's right to be heard. This was done by the incorrect reference to a possible delay in the duplicate and the demand that SharkNinja should limit its submission on the legal validity of the patent to three arguments at the oral hearing. This issue was discussed and clarified in the interim hearing before the Court of Appeal.

Summary of Dyson's arguments in response to the appeal

15. Dyson's arguments in reply are, summarised and so far as relevant, as follows:

- With regard to features 1.3, 1.5.3 and 1.5.4, Dyson supports the reasoning of the Local Board with regard to the interpretation of the claims and the question of whether the attacked embodiments realised the features.
- The local division had rightly considered the patent in suit to be legally valid with sufficient certainty.
- Dyson had acted with the necessary urgency.
- The necessity arose from the fact that SharkNinja's patent-infringing actions threatened to shift market share, which could have a lasting impact on the affected long-life product market.

I - Injury

16. It is undisputed that the contested embodiments fulfil features 1, 1.1, 1.2, 1.4, 1.5, 1.5.1 and 1.5.2, whereas it is disputed whether they realise features 1.3, 1.5.3 and 1.5.4: a cyclone separator device (18) arranged in connection with the suction duct (14) to separate dirt and dust from the air flow ..., wherein the elongated handle (18) of the cyclone separator device (18) is arranged in connection with the suction duct (14).
(28) lies transverse to the longitudinal axis of the suction channel (14) and the cyclone separator device (18) is arranged between the suction channel (14) and the elongated handle (28).

17. The respective positions of the parties on the realisation (or non-realisation) of characteristics 1.3, 1.5.3 and 1.5.4 can be summarised as follows:

Feature 1.3 a cyclone separator (18) arranged in conjunction with the suction duct (14) to separate dirt and dust from the air flow

18. According to Dyson:

- The only defining characteristic of a centrifugal separator/cyclone separation device is that the centrifugal force is utilised by means of directing the air flow (or another medium) in order to achieve separation due to the different mass inertia of the conveyed substances, e.g. air and dirt particles, whereby it is further known to the person skilled in the art that it is neither desirable nor possible for all particles to be completely separated. Feature 1.3. does not require complete separation of dust and dirt by the cyclone separator.
- The fact that an air flow is generated inside the transparent housing, which flows tangentially around the circumference of the housing and generates a spiral-shaped air flow with centrifugal forces, means that it is a cyclone. The separation of the particles takes place in the area of a wedge-shaped plastic part, on the top of which the particles collect and are thus separated from the air. It is therefore a cyclone separator.
- The angle or radius at which this takes place is irrelevant to the question of "tangential" airflow, as the court of first instance rightly recognised. Even the idealised standard models could not rule out air turbulence. This is due to the fact that air turbulence arises due to the deflection of the air and is therefore similar to a cyclone.

separator are inherent. As far as the generation of the air flow is concerned, it is not important for a tangential centrifugal separator to have a tangential air inlet. It is only important that the incoming air is controlled tangentially so that it flows along the inner wall of the cyclone chamber.

- A downward spiral movement can be observed in the contested embodiments.
- The fact that the contested embodiments also used filters, among other things, could not exclude the realisation of the feature.
- Separation takes place in that the cyclone in the cylinder ensures that the particles in the incoming air are kept away from the outlet, i.e. they are separated from the exhaust air.
- The claim is not limited to the use of an embodiment with two consecutive cyclones.
- The claim does not include a requirement for a separate collection container.

19. According to SharkNinja:

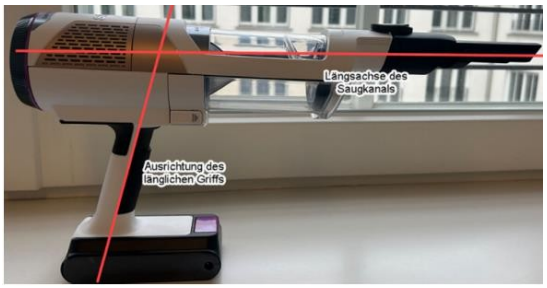
- If designed correctly, a cyclone separator must be designed for the complete separation of dust and dirt. However, complete separation is not possible as there may be some very small impurities. Feature 1.3. also required the cyclone separator to be designed in two stages, i.e. with two successive cyclones.
  In addition, the claim requires a separate collection container for separate dirt and dust, or must at least contain a "collection area".
- The contested embodiments do not have a cyclone separation device. A collection container is missing and there is no separation of the particles from the dust container in a collection container or a collection area which is located outside the air flow of the dust container. Furthermore, the separation of dirt and dust from the air flow is not carried out by the operating principle of cyclone separation, but by a filter.
- A cyclone separator produces a constant and permanent helical air flow around a central axis to the exclusion of other erratic or turbulent flows. The spiral movement of the air flow around the longitudinal axis, which is characteristic of a cyclone separator, is absent in the challenged embodiments.
- The air flow, which contains dust and dirt particles, is drawn through the suction pipe into the dust container. The inclined design of the inlet into the dust container sets the air flow containing dust and particles in motion. This serves to keep the sucked-in dirt particles permanently in motion and thus, in particular, to prevent them from settling in front of the filter and clogging it. The dust and dirt particles are not transported out of the air flow and separated from it, but are instead continuously moved around in it. The particles and dust would be separated exclusively by the filter (dirt separator) installed in the dust container of the embodiments, which would prevent the dust and dirt particles hitting it from leaving the dust container and retain them in the air flow; the filter would then allow clean air to pass from the dust container towards the air flow generator.

- The skilled person knows that a device according to claim 1 is characterised by a corresponding structural design of the air inlet either by a tangential air inlet or by a swirl generator, which provides for the characteristic tangential and helical air flow. The challenged embodiments lack the structural design of the air inlet necessary for a cyclone separator and the air flow is therefore not introduced into the dust chamber in a tangential and helical manner. They contained neither a tangential air inlet nor a swirl generator.

Feature 1.5.3 - wherein the elongated handle (28) lies transverse to the longitudinal axis of the suction channel (14) and

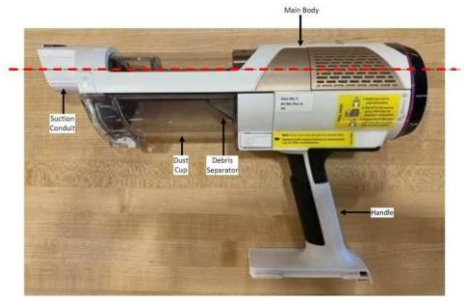
20. According to Dyson:

-The longitudinal axis of the handle of the contested embodiments also intersects the longitudinal axis of the suction channel, i.e. it lies transversely thereto within the meaning of feature 1.5.3.



21. According to SharkNinja:

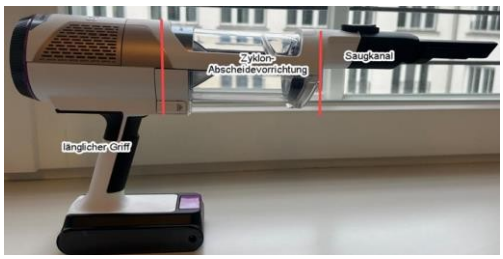
- The longitudinal axis running through the suction channel must pass through the elongated handle if the claim is correctly interpreted. The handle of the contested embodiments does not realise feature 1.5.3.
- The handle does not lie at right angles to the longitudinal axis of the suction channel and intersects it, but is located underneath it.



Feature 1.5.4 - the cyclone separator (18) is located between the suction channel (14) and the elongated handle (28).

22. According to Dyson:

- According to feature 1.5.4, the cyclone separator of the contested embodiments is arranged between the suction channel and the elongated handle.



- The fact that the handle of the cyclone separator and the suction pipe are arranged along a line is also illustrated in the following figure (emphasis added):

23. According to SharkNinja:

- The alleged cyclone separator is not located between the suction channel and the elongated handle, as the handle is not located in a plane next to the dust container, but underneath it.
- The dust container is not located between the suction channel and the elongated handle, as the elongated handle is not on the same axis as the alleged cyclone separator and the suction channel.

II - Legal validity

24. SharkNinja challenges the Court of First Instance's finding on the likelihood of the validity of the patent in suit for the following reasons.

- Lack of inventive step in relation to Gimelli, a German utility model with the title "Hand-held hoover", in conjunction with the general expertise
- Lack of inventive step in relation to Gimelli in combination with KR 144 (FBD 12)
- Lack of inventive step in relation to Gimelli in combination with GB 787 (FBD 13)
- Lack of inventive step in relation to Gimelli in combination with US 048 (FBD 14)
- Lack of inventive step in relation to GB 572 (FBD 9) in conjunction with common general knowledge
- Lack of novelty and inventive step in relation to JP 573 (FBD 10) in combination with common general knowledge
- Lack of inventive step in relation to FR 452 (also known as D2 or FBD 11) in combination with common general knowledge
- Lack of inventive step in relation to Pifco Vacette (FBD 24)

25. In Dyson's opinion, the patent is valid. Dyson has put forward compelling arguments against all the combinations used by SharkNinja.

REASONS FOR THE ORDER

The legal starting point

26. When the court decides on a request for provisional measures under R.211.2 RoP in conjunction with Art. 62(4) UPC, a sufficient degree of certainty (see also Art. 9(3) of Directive 2004/48/EC) requires that the court considers that it is more likely than not that the applicant is entitled to institute proceedings and that the patent will be infringed (i.e. that the court i s reasonably satisfied that it is more likely than not that the patent will be infringed). A sufficient degree of certainty is lacking if the court assumes with overwhelming probability that it is more likely than not that the patent is not valid.

27. Insofar as is relevant here, the burden of presentation and proof for facts that are intended to justify the authorisation to initiate proceedings and the infringement or threatened infringement of the patent, as well as for all other circumstances that are intended to support the applicant's request, lies with the applicant. The burden of presentation and proof for facts relating to the lack of validity of the patent and other circumstances allegedly supporting the defendant's position, on the other hand, lies with the defendant.

The specialist

28. The Munich Local Chamber correctly assumed that the specialist is a qualified engineer with several years of practical experience in the development and design of household hoovers. The parties have no objections to this.

Claim construction; feature 1.3; in particular the element "cyclone separator"

29. The patent claim is not only the starting point, but also the decisive basis for determining the scope of protection of a European patent under Art. 69 EPC in conjunction with the Protocol on the Interpretation of Art. 69 EPC. The interpretation of a patent claim does not depend solely on its exact wording in the linguistic sense. Rather, the description and the drawings must always be taken into account as explanatory aids for the interpretation of the patent claim and not only be used to resolve any ambiguities in the patent claim. However, this does not mean that the patent claim merely serves as a guideline and that its subject matter also extends to that which, after examination of the description and drawings, appears to be the patent proprietor's request for protection. The patent claim must be interpreted by a person skilled in the art. When applying these principles, appropriate protection for the patent proprietor should be combined with sufficient legal certainty for third parties. These principles for the interpretation of a patent claim apply equally to the assessment of infringement and the legal validity of a European patent.

30. The patent specification does not define what a cyclonic separator device is. The Court of Appeal agrees in principle with Dyson's view that the cyclone separator device is a functional claim feature as understood by a person skilled in the art at the priority date.

31. According to the witness statement of Mr[redacted] on which Dyson relies, "the distinguishing elements of a cyclonic separator" in a hoover are [...]: The airflow entering the separator is directed tangentially around the circumference of the inner wall of the container; this creates a helical airflow whose purpose is to generate centrifugal forces that force contaminants away from the direction of the exhaust air. The separated dirt settles in a collection area.

32. Similarly, in his testimony relied upon by SharkNinja, Mr[redacted] explains how cyclonic separators use centrifugal force to separate particles (such as dirt) from the air stream. Mr[redacted] describes the separation principle of the reverse flow cyclone separator as follows:

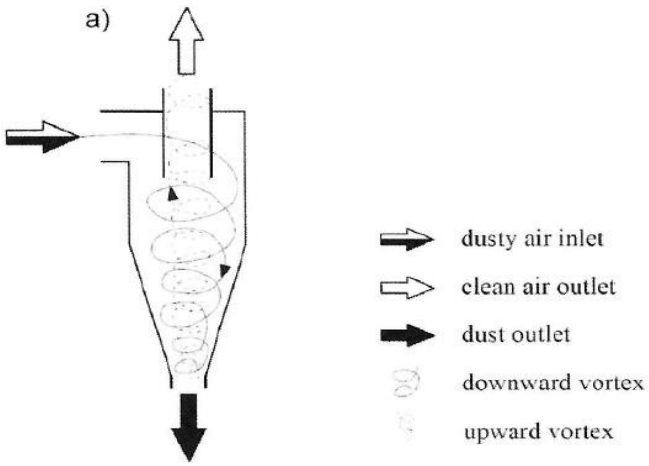


Figure 1

Referring to the illustration below, Mr[redacted] explains how in reverse flow cyclone separators, contaminated air is fed into the cyclone housing through a specially designed side air inlet so that the air moves tangentially along the inner wall of the cyclone chamber. Due to the tangential inlet and cylindrical shape, the particles in the air entering the cyclone separator via the side air inlet are set in a circular motion along the inner wall of the cyclone housing and move downwards in a spiral (sometimes referred to as a helical airflow). The centrifugal force carries the dust or liquid particles outwards towards the inner wall of the cyclone housing.

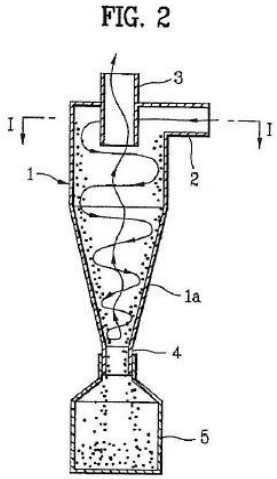


Figure 2

33. Based on the consistent testimony of the respective parties, the Court is satisfied with reasonable certainty that the skilled person on the priority date understands feature 1.3 to mean that the airflow entering the housing is directed to flow tangentially around the perimeter of the inner wall of that space, thereby forming a helical airflow whose purpose is to generate centrifugal forces that push impurities away and allow them to settle in a collection area.

34. As explained, there is no recognisable difference of opinion between the party experts in this respect. Furthermore, there is no evidence in the claims, the description or the drawings to contradict such an interpretation, and additional support for the view that a cyclone separator device should be understood in its "ordinary" sense is found in the description in [18], which states:

During operation, the airflow generator 36 draws a flow of dirt- and dust-laden air into the suction opening 16, through the suction duct 14 and into the cyclone separator 18. Air laden with dirt and dust enters the upstream cyclone 20 and larger dirt and dust particles are separated by the cyclone movement. These particles are then collected in the upstream cyclone 20.

35. The Court of Appeal also agrees with Dyson that a cyclone separator device may be designed to separate certain particles while others pass to a filter, and that claim 1 is not limited to the use of an embodiment with two consecutive cyclones.

36. The parties disagree as to the meaning of "tangential" and the manner in which the centrifugal force should act on the particles according to the invention. - In Dyson's view, the centrifugal forces should create an arcuate motion to cause some dust particles to move along a portion of the circumference of the cylinder. In fact, in Dyson's view, it is not necessary for it to be a complete circle, and it does not matter whether the angle of the airflow is steep or not. Particles travelling around a small curve can still be considered to be moving in a circle. Tangential means that the airflow moves along the inner perimeter of the wall, but the angle relative to the wall does not matter. Dyson has

also emphasises that efficiency is not part of this claim element. - SharkNinja, on the other hand, argues that a tangential, helical airflow with circulation along the cylinder is required and that a cyclone separator must generate more motion than just a portion of a circle.

37. As will be explained in the next section, the Court of Appeal is not persuaded that the airflow entering the housing of the accused embodiments is directed so as to flow tangentially around the circumference of the inner wall of that space, thereby forming a helical airflow whose purpose is to generate centrifugal forces which push the contaminants away and allow them to settle in a collection area. It is more likely that the inclined flap next to the air inlet will create an airflow at an angle with respect to the introduction of particle-laden air into the cylinder, causing the particles to hit the cylinder wall in a predominantly vertical direction, but not resulting in a tangential airflow. For this reason, the extent to which circulation of the particles in a helical air flow would be necessary can be left open.

Whether the contested embodiments fulfil feature 1.3, element "cyclone separator", realise

38. The next question to be examined is whether the attacked embodiment comprises a cyclone separator device as claimed in feature 1.3.

39. This is a case where the assessment of the evidence submitted by the patentee is central and will determine the outcome of the proceedings. Dyson has submitted video sequences showing (i) sugar particles, (ii) light brown particles and (iii) a fibre all entering and moving within the transparent plastic cylinder housing of the accused embodiments.

40. The air enters the cylinder housing through an inlet placed flat in the circular base of the cylinder; when no air flows through the inlet, a hinged flap closes the opening (inlet and flap marked below):

41. Furthermore, the attacked embodiments are designed so that the air can flow from the inlet into the cylinder to a filter (filter marked below):

42. From the demonstration example of the contested embodiments (available during the oral hearing), it can be seen that there is a plastic protrusion next to the filter. This is not so clearly recognisable in the videos. When asked about the function of this protrusion, Dyson responded that it serves to divert the contaminants away from the filter, in particular to redirect the contaminants downwards. SharkNinja replied that the purpose of this protrusion was to create turbulence. This protrusion is shown below.

43. It is clear that the main method for separating the dirt particles from the air flow in the embodiments under attack is the filter. However, this does not exclude the possibility that cyclonic separation may also be present, as hoovers may be equipped with both cyclonic separation devices and filters at the same time.

44. In reviewing the videos, the appellate court looked for evidence of centrifugal force acting on the particles. Of the three types of particles (sugar, light brown particles and a fibre), the fibre was the only dirt particle that showed complete rotation. This occurred in the upper part of the cylinder where the filter is located. However, it was previously seen that the fibre entered diagonally and relatively quickly through the air inlet; it was caught at a low point near the air inlet against the filter.

the cylinder wall. The fibre then oscillated back and forth on the cylinder, but continued its upward path and finally began an anti-clockwise carousel motion around the filter. The fibre did not appear to settle in a collection area.

45. The movement of the sugar particles was clearly different. The sugar particles passed through the air inlet at a steep upward angle and travelled further in a diagonal line, hitting the cylinder wall relatively high up towards the filter. Some particles even appeared to hit the top of the cylinder. The initial movement was therefore opposite to that of a cyclone. Many of the sugar particles then travelled in a slightly downward curve towards the edge next to the flap, where some of them settled. Other particles eventually settled at the base of the cylinder. However, other particles were drawn into the incoming airflow and propelled upwards towards the filter again. It is difficult to determine to what extent the downward motion is caused by gravity acting on the particles after their initial diagonal upward thrust and subsequent bounce off the cylinder wall, and to what extent it is a result of the airflow. What one would typically expect to see when centrifugal force is acting is particles sliding down along the walls in a sort of spiralling motion (see Figures 1 and 2 above under claim design), but this is not the case here. In addition, turbulence can be observed at the base of the cylinder next to the air inlet and in the upper area next to the protrusion.

46. Finally, the light brown particles also move diagonally away from the air inlet and hit the cylinder wall (but at a lower point than the sugar particles), whereupon they show a movement that appears rather random. Some of them move towards the edge, but are then thrown upwards again.

47. Based on these observations, the Court of Appeal concludes that it is more likely that the inclined flap next to the air inlet creates an airflow at an angle in relation to the introduction of particle-laden air into the cylinder, causing the particles to hit the cylinder wall in a predominantly vertical direction, but not resulting in a tangential airflow. The three particle types show different movement patterns. The sugar particles come closest to a helical motion during a small part of their downward motion (the downward curve), but it cannot be determined from this evidence whether this is the predominant way in which the airflow affects the particles. If centrifugal force is present, it is not evident in the videos to the degree required for legal requirements. As mentioned above, the fibre does not appear to settle in a collection area and therefore does not appear to be subject to centrifugal forces as it never adheres to the wall and is not deposited.

48. These considerations lead to the conclusion that, on the basis of the facts and evidence adduced by Dyson, it is not predominantly probable that the accused embodiments realise feature 1.3 of claim 1. On balance of probabilities, it is not overwhelmingly likely that the patent is infringed. The preliminary injunction against SharkNinja (local division order, I-II) must be cancelled.

49. In view of the assessment in relation to feature 1.3 of claim 1, it is not necessary to examine the other grounds put forward by the parties.

50. The local division ordered the parties to each bear their own costs for the time being. This part of the order must be set aside with regard to SharkNinja's costs. Instead, Dyson is ordered to pay SharkNinja's costs before the Court of First Instance. In addition, Dyson is ordered to pay SharkNinja's costs on appeal.

ARRANGEMENT

- The contested order (I-II) is cancelled. The application for interim measures is rejected.

- Orders Dyson to pay SharkNinja's costs of the proceedings for interim measures in both instances.

Issued on 3 December 2024

Rian Kalden Date: 2024.12.03 11:52:43 +01'00'

Rian Kalden, presiding judge and legally qualified judge

Åsa Ingeborg Simonsson Digitally signed by Åsa Ingeborg Simonsson Date: 2024.12.03 10:35:21 +01'00'

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