Case Number: T 0837/00 - 3.3.7
Application Number: 93810709.1
Publication Number: 0592372
IPC: B01D 61/02
Language of the proceedings: EN
Title of invention:
Transportable reverse osmosis water purification unit
Patentee:
ZENON ENVIRONMENTAL INC.
Opponent:
Berkefeld-Filter Anlagenbau GmbH
Headword:
-
Relevant legal provisions:
EPC Art. 123(2), 123(3)
EPC R. 57a, 88
Keyword:
"Amendments - occasioned by the grounds of opposition - (yes)"
"Amendments - deletion of feature (admissible) - broadening of claim (no)"
"Rectification - compliance with Rule 88 EPC - (yes)"
Decisions cited:
G 0011/91
Catchword:
-
Case Number: T 0837/00 - 3.3.7

DECISION
of the Technical Board of Appeal 3.3.7
of 15 January 2004

Appellant: ZENON ENVIRONMENTAL INC.
(Proprietor of the patent) 845 Harrington Court
Burlington,
Ontario L7N 3P3   (CA)

Representative: Dallmeyer, Georg, Dipl.-Ing.
Patentanwälte
von Kreisler-Selting-Werner
Postfach 10 22 41
D-50462 Köln   (DE)

Respondent: Berkefeld-Filter Anlagenbau GmbH
(Lückenweg 5
D-29227 Celle   (DE)

Representative: Glawe, Delfs, Moll & Partner
Patentanwälte
Rothenbaumchaussee 58
D-20148 Hamburg   (DE)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 10 July 2000
revoking European patent No. 0592372 pursuant
to Article 102(1) EPC.

Composition of the Board:
Chairman: R. E. Teschemacher
Members: G. Santavicca
B. J. M. Struif
**Summary of Facts and Submissions**

I. The mention of the grant of European patent 0 592 372, in respect of European patent application 93 810 709.1, filed on 8 October 1993 and claiming a right of priority in the USA of 9 October 1992 (US 959086), was published on 2 December 1998. The patent as granted comprised 9 claims. Claims 1 and 7 read as follows:

"1. A self-contained, transportable reverse osmosis water purification unit (60) having a feed pump (13), coarse filter means (15) and fine filter means (16), first pass (20, 21) and second pass (34) reverse osmosis modules connected in series, first pass (17) and second pass (33) process pumps, and a chlorine injection pump (28), so as to provide a throughput of no more than about 3,500 litres/hr of permeate in a single pass operation, said self-contained unit having an enclosed weather-tight housing on a continuous base (64) integrally combined with said housing to form a purification container having the overall dimensions of an ISO container, said purification container being adapted to be demountably disposed in a transport means from which said purification container may be deployed, to land on the ground in a horizontal position, right-side-up; an A-frame (69) integrally combined with said base, including attachment means (68) for deploying said container; and, hydrocarbon fuel-powered generating means (72) for generating sufficient electricity at a voltage required to operate all components powered by electricity, and storage means (73) for storing enough fuel to operate said generating means for a predetermined period of time, characterized in that:
said self-contained unit has a throughput of no more than about 76 L/min. (20 gpm) of permeate in a single pass operation,

said housing is divided into first (61) and second (62) enclosed compartments separated from one another by a dividing wall (63), said second compartment having said fuel storage means, and said generating means including electrical control means therefor and a storage battery, housed in said second compartment;

said first compartment (61) has housed therein substantially all additional components for purifying raw contaminated water, said components including, a booster pump (14), a bladder tank (31) having a capacity of at least 64 litres (17 gal); a cleaning tank (32) having a capacity of at least 113 liters (30 gal); and, control means to operate said components to deliver no more than 75 L/m (20 gpm) of permeate in a single pass operation;

the equipment in said first and second compartments (61,62) being demountably secured to said base and interior surfaces of said compartments with shock-absorbing means, said equipment being essentially symmetrically distributed about the center of mass of said container,

whereby said container may be unloaded without due care from a supporting surface above the ground and land thereon, base first, and
remain oriented in a substantially vertical position."

"7. Use of a self-contained, transportable reverse osmosis water purification unit as claimed in any preceding claim for purifying water in a process delivering no more than about 76 L/m (20 gpm) of permeate in a single pass operation from the first pass modules (20,21) of said unit."

Dependent claims 2 to 6 and 8 to 9 concerned preferred embodiments of the unit according to Claim 1 and the use according to Claim 7, respectively.

II. A notice of opposition was filed on 1 September 1999, in which revocation of the patent was requested on the grounds of Article 100, paragraphs (a) and (c), EPC, i.e. with respect to lack of an inventive step and to extension of the subject-matter of the patent beyond the content of the application as filed, respectively. The opposition was inter alia based on the following document:

D1: M.J. Hauschild, "Reverse Osmosis: Development of a High Technology Water Treatment Capability for the Canadian Forces", Ubique No. 35, September 1990, pages 32 to 37

By letter of 12 May 2000, the opponents sought to introduce a further ground of opposition under Article 100(b) EPC.

III. The proprietors refuted the arguments of the opponents and requested maintenance of the patent as granted.
In a decision notified in writing on 10 July 2000, the Opposition Division revoked the patent. In that decision, which was based on the set of claims 1 to 9 as granted as the sole request, it was held that:

(a) It was immediately evident to the skilled reader of the patent application as filed that nothing else would have been intended than to disclose US liquid gallons. Therefore, the conversion from the units "gallon" and "gpm" as filed to the corresponding SI units on the basis of the US liquid gallon fulfilled the requirements of the EPC.

(b) Neither the value "3,500 litres/hr" for the throughput of permeate, nor the relevant upper limit thereof defined by the expression "no more than about", both in Claim 1 in suit, had been disclosed in the application as filed. Therefore, the feature "no more than about 3,500 litres/hr" contravened the requirements of Article 123, paragraph 2, EPC.

(c) Consequently, the patent should be revoked.

The proprietors (appellants) lodged an appeal against that decision, received on 19 August 2000, the appeal fees being paid on the same day. In their statement setting out the grounds of appeal, received on 10 November 2000, the appellants enclosed further sets of claims as auxiliary requests 1 to 4. In particular, in Claim 1 according to the fourth auxiliary request, the feature "no more than about 3,500 litres/hr" had been deleted.
In a letter dated 15 December 2003, the appellants enclosed copies of further documents (D8 to D14) and an affidavit from Mr Scott Pundsack (D15).

VI. The opponents (respondents) refuted the arguments of the appellants and submitted copies of further documents (D6 to D7 and D16 to D24) to show which units were customary in Canada (letters dated 19 March 2001, 11 September 2001 and 5 January 2004).

VII. Oral proceedings were held on 15 January 2003. The appellants submitted a further document (D25), i.e. a copy of an extract from the database "ConvertIt.com", to show that the unit "gpm" was understood as US liquid gallons per minute. Further, the order of the requests then on file was reversed, such that the fourth auxiliary request became the main request.

VIII. The arguments of the appellants (proprietors) can be summarised as follows:

(a) The feature "no more than about 3,500 litres/hr", added to the preamble of Claim 1 in suit during the examination phase to specify the throughput of permeate in a single pass, referred to a prior art water purification unit described in D1.

However, if account was taken of the word "about", the value "about 3,500 litres/hr" in Claim 1 would be equivalent to the value "about 15 gpm" disclosed in the application as filed with a deviation that amounted to 2.7% only, i.e. an acceptable approximation.
A throughput of 20 gpm of permeate in a single pass was specified in the characterising portion of Claim 1 in suit. Whichever gallon was understood from the application as filed, that throughput was higher than that of the contested feature "no more than about 3,500 litres/hr" in the preamble of Claim 1.

The skilled person reading Claim 1 would immediately recognize that the same throughput could not be defined by two different values. Whilst the lower throughput pertained to the preamble of Claim 1 and concerned the prior art, the throughput of 20 gpm was mentioned several times in the description as a requirement for the maximum throughput of the water purification unit. Hence, for the skilled person the description left no doubt that the maximum throughput as claimed amounted to 20 gpm. Therefore, since the contradictory indication "no more than about 3,500 litres/hr" was meaningless and redundant, it could be deleted from Claim 1 according to the new main request without violation of Article 123(3) EPC.

(b) A conversion from the unit "gallon" was only present in Claims 1 and 7, not however in the description of the application as filed. On filing the application, in a tentative to indicate the corresponding SI units, a conversion factor of 4.4 litres per gallon had been inadvertently taken by the representative: either from the conversion of US dry gallons to litres, the conversion factors for US dry and liquid gallons were normally listed
one after the other; or from the conversion of the unit m³/h to gpm, which also amounted to 4,4.

(c) The presence of an error in the conversion made in Claims 1 and 7 as filed was apparent from the following facts:

- The Canadian gallon was not the usual unit for defining the required flow-rate from the water purification units for military personnel within the NATO;

- the patent application was based on a US priority application, and the patent issued from that priority application carried the gallon values as filed;

- the description as filed only contained US units such as "psi" and "US-standard-Mesh" and referred to US standards. The fact that some US units such as "psi" were also used in Canada did not change this picture. Hence, the application as filed only related to US units of volume;

- the unit "US dry gallon" was unusual in the field of reverse osmosis;

- the description as filed commented on a US army prior art water purification unit, without indicating any conversion from the gallon data thereof to either Canadian or US dry gallons;

- the description mentioned preferred pumps supplied by US manufacturers, who only used US gpm to specify the rates of the pumps. Also in this context, no indication that other units were meant was given in the description as filed.
(d) Therefore, by considering all of these facts, it was immediately apparent to the skilled reader of the application as filed that the conversion factor of 4,4 in Claims 1 and 7 was an error.

(e) Further, since the US dry gallon was not used to specify pump rates in USA, and since the unit of volume "gpm" was customary only with US liquid gallons, as shown by D25, nothing else would have been intended than to indicate US liquid gallons in the application as filed.

(f) Therefore, the correction made in the examination proceedings complied with Rule 88 EPC.

IX. The respondents (opponents) argued essentially as follows:

(a) The appellants had admitted that the contested feature "no more than about 3,500 litres/hr" had been erroneously introduced in Claim 1. In fact, the feature "typically about 15 gpm" as filed, whichever interpretation was given to the unit "gpm", did not constitute a basis for the contested feature. Therefore, the contested feature contravened the requirements of Article 123(2) EPC.

(b) In the present case, the flow rates of the permeate were of extreme importance for the transportable water purification unit. In fact, the contested limitation "no more than about 3,500 litres/hr" defined the maximum throughput of permeate and provided a technical contribution to the claimed
subject-matter. Consequently, the further
definition of the maximum throughput of permeate of
20 gpm in the characterising portion of Claim 1 was
redundant. Therefore, the contested feature could
not be deleted without violation of Article 123(3)
EPC.

(c) The values for the converted gallons, according to
Claim 1 in suit, were based on a conversion factor
of 3,785 litres/gal for the US liquid gallon.
However, the same features in the application as
filed were based on a conversion factor of 4,4
litres/gallon.

The application as filed referred to the units
"gpm" and "gallons". The applicant was a Canadian
entity and the inventors were residents of Canada.
It should thus be supposed that Imperial Gallons
were intended, also named Canadian gallons as
shown by D24. Further, the conversions as filed
were mistakenly made for British imperial gallons
as admitted by the proprietors in a letter during
the examination proceedings. The factor 4,4
litres/gallon in the claims as filed was closer to
the factor for the conversion from the Imperial
gallon than to that for the conversion from the US
liquid gallon, the deviation being only about 3,1%,
i.e. not relevant. Therefore, from the claims as
filed, no error was apparent.

Even if an error was apparent from the claims as
filed, there were three plausible possibilities of
understanding the unit "gallon" as filed:
- As Imperial gallon;
as US dry gallon, which was unusual but which could not be excluded; or,
- as US liquid gallon.

That the conversion factors for the units "US dry gallon" and "US liquid gallon" were normally listed one after the other, such that one could inadvertently be taken for the other, had not been proven. Nor had it been proven that the unit "gpm" only related to the US liquid gallon, since D25 was a US database.

As regards the units "psi" and "psig", they were also common in Canada, as shown by D17. Since the unit of volume "US liquid gallon" was not the one and only plausible possibility of correction, there was no room for rectification of the values as filed under Rule 88 EPC. Therefore, the requirements of Article 123(2) EPC had been contravened.

(d) Even if Article 123 was not violated, the subject-matter of Claim 1 in suit would nevertheless not involve an inventive step under Article 56 EPC. Further, the objection under Article 100(b) EPC was also maintained.

X. The appellants (patentees) requested that the decision under appeal be set aside and that the patent be maintained on the basis of one of the requests submitted in their letter dated 10 November 2000, in the following reversed order: Auxiliary request 4 became the main request; the previous main request became auxiliary request 1; previous auxiliary requests
1, 2 and 3 became auxiliary requests 2, 3 and 4, respectively.

XI. The respondents (opponents) requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.

Main request

2. Amendments

2.1 Compared to the claims as granted, only Claim 1 has been modified, by deletion of the contested feature "no more than about 3,500 litres/hr".

2.2 Since that amendment is occasioned by the ground of opposition under Article 100(c) EPC, it complies with Rule 57a EPC.

2.3 The feature added during the examination proceedings has been deleted from Claim 1. Therefore, the question whether or not the deleted feature has a basis in the application as filed has become irrelevant and a contravention of Article 123(2) EPC can no longer be alleged.

2.4 It remains to be decided whether or not the deletion of that feature extends the scope or protection of Claim 1 as granted, as objected to by the respondents.
2.4.1 The feature added to the preamble of Claim 1 in suit during the examination proceedings, concerning a throughput of permeate, was a technical feature not disclosed in the application as filed.

2.4.2 That feature in the preamble of Claim 1 defined an upper limit for a flow-rate of the permeate in a single pass. However, also the feature of the first clause of the characterising portion of Claim 1 defines an upper limit for the flow-rate of the same permeate. Hence, in Claim 1 as granted, one and the same flow-rate was defined by two maxima under the same condition. Therefore, a contradiction was evident.

2.4.3 A contradiction is however a matter of clarity, on which there are no grounds for opposition (Article 100 EPC). In order to resolve that contradiction, Claim 1 has to be interpreted.

2.4.4 Claim 1 concerns a self-contained transportable reverse osmosis water purification unit as delineated in its preamble. That unit further comprises the features of the characterising portion of the claim.

2.4.5 According to the description of the patent in suit, in particular the "Summary of the Invention", the unit should be capable of producing no more than 20 gpm of potable permeate (Column 6, lines 8 and 9).

That throughput constitutes a maximum throughput of permeate sought for the claimed units, as it is apparent from several other parts of the description (column 1, last line; column 7, lines 16 and 37; column 11, lines 19 and 55; column 12, line 41).
maximum throughput is defined in the first clause of the characterising portion of Claim 1 in suit.

2.4.6 The contested maximum flow-rate of "3 500 litres/hour", now cancelled from the preamble of Claim 1, is smaller than the maximum flow-rate of permeate of 20 gpm defined in the characterising portion of Claim 1 in suit, whichever factor of conversion to litres is used for the unit gallon.

Since the maximum flow-rate of 20 gpm of permeate in a single-pass is defined as an essential feature of the invention throughout the description and in the first clause of the characterising portion of Claim 1, the specification as a whole shows that the cancelled smaller maximum of 3,500 litres/hr is not intended to limit the throughput of permeate in a single pass.

2.4.7 Furthermore, the cancelled feature had been taken from D1 and inserted in the preamble of Claim 1. The features of the preamble of a claim drawn-up in a two-part form, pursuant to Rule 29(1) EPC, shall define the features of the invention, which, in combination, are part of the prior art, whereas the characterising portion shall state the additional features which, in combination with those of the preamble, it is desired to protect. It is true that the fact that a feature in the preamble recurs in the characterising portion in a modified form is an example of an incorrect claim drafting. It is however neither a rare exception (Bruchhausen, Die Formulierung der Patentansprüche und ihr Auslegung, GRUR 1982, 1, at page 4, left column) nor does it make impossible an appropriate understanding of the claim. It remains clear that the
preamble is related to the state of the art and that
the characterising part contains the distinguishing
features. Therefore, the structure of Claim 1 confirms
that the cancelled feature was not intended to restrict
the claimed subject-matter.

2.4.8 Hence, Claim 1 as granted contained a feature not
originally disclosed which, however, did not limit the
maximum throughput of permeate.

2.5 It follows from the above that the deletion of the
added feature "no more than about 3,500 litres/hr" does
not result in an extension of the protection conferred
beyond the maximum value specified in the
characterising portion of Claim 1 as granted.

2.6 Therefore, Claim 1 as amended according to the main
request fulfils the requirements of Article 123(3) EPC.

3. \textit{Correction under Rule 88 EPC}

3.1 The further relevant question to be answered is whether
or not the correction of the conversion factor from
gallon to litre resulting from Claim 1 as filed
complies with the requirements of Rule 88 EPC, thus
with those of Article 123(2) EPC.

3.2 Rule 88, second sentence, EPC includes two requirements:

(a) the first requirement is that it must be
objectively recognisable that specific information
is incorrect, i.e. the skilled person must be in a
position to objectively recognise the incorrect
information by using common general knowledge.
(b) the second requirement is that it is immediately obvious to the skilled person that nothing else had been intended than the proposed correction. In that respect, the incorrect information can be corrected only within the limits of what the skilled person, using common general knowledge, would directly and unambiguously derive from the description, claims and drawings, if any, of the European patent application, seen objectively and in relation to the date of filing, i.e. what was, on the date of filing, the objectively recognisable intention of the person making the request (G 11/91, OJ 1993, 125, point 2 of the reasons; Case Law of the Boards of Appeal of the EPO, 4th edition 2001, III.D.2, III.E).

3.3 Claims 1 (four times) and 7 (once) as filed add a conversion from the original units "gallon" and/or "gpm" to the SI units "litres" and "litres/hr", respectively, in order to indicate the capacity or the throughput of permeate. However, no conversion of units was present in the description as filed.

3.4 The factor used for the conversion from gallons to litres in Claims 1 and 7 as filed amounts in four of the five cases to 4.4 litres per gallon, whilst in one case the factor amounts to 4.412 (17 gal = about 75 litres). The term "about" appears to take the deviation into account, however.

In this respect, it is noted that since the SI units were put in brackets in Claims 1 and 7 as filed, it was immediately evident that the SI units were the
converted units, whilst the units "gal" and "gpm" were the original ones, i.e. those of primary relevance.

3.5 The skilled person knows that the unit of volume "gallon" is ambiguous and needs additional information to establish what volume is meant, i.e. to how many litres it corresponds. That unit of volume has got three different meanings in the submissions of the contending parties, as follows:
Canadian or Imperial gallon = 4.546 litres;
US dry gallon = 4.405 litres;
US liquid gallon = 3.785 litres.
The conversion factors submitted by the parties are in line with those indicated in the Perry's Chemical Engineers' Handbook, sixth edition, 1984, Table 1 to 5, a qualified source of common general knowledge in the field.

3.6 The skilled person reading the application as filed using common general knowledge, objectively recognises that the factor used for the conversion from gallons to litres in Claims 1 and 7 as filed exactly corresponds to that for the conversion from the "US dry gallon" to "litres". The unit of volume "US dry gallon", which is larger that the unit of volume "US liquid gallon", (point 3.5, supra), is, however, not a usual unit to indicate a liquid volume. Indeed, it is used to measure dry goods, dry volumes.

Moreover, the application as filed concerns a unit for the purification of water by reverse osmosis. Hence, the application as filed deals with the production of a volume of purified water.
Consequently, since the unit of volume "US dry gallon" is unusual in the field of liquid transport and filtration, its presence implies that an error was present, or, at least, awakes the curiosity, thus the inquisitiveness of the skilled person.

3.7 Throughout the application as filed, the units of volume and throughput "gallon" and "gpm", respectively, are mentioned and referred to several times to indicate capacities and throughputs.

These references concern not only the throughputs of permeate from the reverse osmosis membrane and the capacity of the tanks of the claimed water purification unit but also the rates of commercially available pumps and the throughputs of existing water purification units. In particular, the units "gallon" and "gpm" are mentioned in the description as filed in the following contexts:

(a) The acknowledgement of the relevant prior art includes the mention of a US document that concerns a similar unit for reverse osmosis. The throughput of that unit is also expressed by the units "gallon" and "gpm" (application as published, column 3, lines 21 to 50).

No indication is given that the units in the context of the prior art were distinct from the units in the context of the claimed subject-matter. Nor was any indication given that a conversion from these units to any of the other gallons, e.g. from US liquid gallon to the US dry or the Imperial gallon, were envisaged.
Therefore, the units described in the original US document of the prior art happens to be the same as those used for the claimed subject-matter.

(b) The description of the recommended pumps (FMC triplex plunger pumps) includes the specification of their rates, in "gpm" (application as published, column 13, lines 4 to 12). It has not been contested that these pumps are manufactured by a US Company. US companies in general use the US gallon as a unit of liquid volume for characterising their pumps.

Further, no indication is given in the description as filed that in the context of the mention of the preferred pumps any conversion from the original units had ever been envisaged, i.e. no conversion from a particular gallon to any of the others is apparent.

Therefore, the throughputs of the preferred pumps were expressed in the units of liquid volume supplied by the US manufacturers, without any conversion.

3.8 In conclusion, from the particulars in the description mentioned above, the skilled person using common general knowledge recognises immediately that throughput and capacity of the water purification unit, expressed by the values in "gpm" and "gallons" respectively, can only be understood in terms of units of liquid volume.

0266.D
Whatever unit of liquid volume is implied from the terms "gallons" and "gpm", the application as filed has not been drawn up in terms of units of dry volumes.

The fact that the conversion factor for the US dry gallon is closer to the conversion factor for the Canadian or Imperial gallon than to that for the US liquid gallon cannot remove the impression that an error was present, because the unusual conversion factor in the claims as filed has no exact correspondence to the Canadian unit either.

From the above it follows that an error was present in the claims as filed, in view of the unusual factor of 4.4 used to convert "US dry gallon" to litres.

3.9 It remains to be decided whether or not it was immediately obvious, from the documents as filed, that nothing else had been intended than what was offered as the proposed correction.

3.9.1 The claimed subject-matter concerns a transportable reverse osmosis unit to produce a volume of purified water to fulfil the need of military personnel in any location in which only contaminated water is present. The maximum dimensions and weight of the unit, as the wide range of conditions under which the unit must operate successfully, *inter alia* throughput and capacity of the items of the equipment, are specified (patent application as published; column 1, lines 17 to 23; paragraph bridging columns 1 and 2).
3.9.2 The prior art acknowledged in the patent in suit inter alia refers to a particular example of transportable reverse osmosis unit described in an article of the U.S. Army Belvoir Research and Development and Engineering Center. That description also indicates the throughput of permeate and capacity of tanks of the reference prior art units and mentions the units "gpm" and "gals" (column 3, lines 21 to 50).

Since that article originates from a U.S. army center it is immediately evident that the original units mentioned in the prior art document referred to liquid volumes such as US liquid gallon and gpm.

3.9.3 It has not been contested that the pumps recommended in the description as filed, as suitable pass pumps, are manufactured by a U.S. company (application as published, column 13, lines 4 to 12). These pumps are intended for the transport of water through the unit and their throughput rates were given in the unit "gpm". It has not been shown that these commercially available pumps had not been manufactured according to U.S. standards. It has not been shown either that the U.S. manufacturers would use another unit than the usual US unit of liquid volume for such pumps. In this respect it is noted that the "Imperial gallon" is not a customary unit of liquid volume in the U.S.A., such that an express mention would be necessary to indicate that another unit than the US liquid gallon was intended.
Therefore, the mentioned rates of the preferred pumps in the application as filed are to be understood as the customary US units of liquid volume for pumps, i.e. the US liquid gallon or gpm.

The question whether or not the unit "gpm" only corresponds to US liquid gallon per minute, as submitted by the appellants, can thus be left undecided.

3.9.4 The above conclusion cannot be altered by the counter arguments submitted by the respondents, for the following reasons:

(a) As regards the facts that the proprietors are a Canadian entity and the inventors were residents of Canada, this has to be seen in relation to the fact that the right of priority from a U.S. application has been claimed. An applicant who files an application before the USPTO will draw up the application by taking into consideration the units that are customary before the USPTO and in the territory for which the patent is to be granted. This choice is in line with the military specifications for the units, which standards directed to military personnel normally use US units of measure. The contrary has not been shown in this respect. Consequently, the fact that the priority was filed in the U.S.A. plays a more important role to establish what unit of liquid volume was meant than the residence of the proprietors and the inventors in Canada.
(b) As regards the fact that the factor 4.4 in the claims as filed was closer to the factor of conversion from the Imperial gallon to litres than to that from US liquid gallon to litres, it is noted that none of these conversions provided correctly calculated values. Furthermore, there might well be other reasons why these two factors are so close, e.g. historical reasons.

Summing up, the arguments submitted by the respondents do not take into account the specific contexts of the disclosure to gather what was actually meant by the units of volume as filed. Consequently, none of them proves what the proprietors meant to submit as correct information on the date of filing.

3.10 Therefore, the particulars in the description directly and unambiguously lead the skilled person using common general knowledge to the conclusion that the applicants, on the date of filing, meant the use of the US liquid gallon offered as correction.

3.11 It follows from the above, that the conversion of volumes from gallon to litres, or from gpm to litres/h, in Claim 1, using the definition of the US liquid gallon, complies with the requirements of Rule 88, second sentence, EPC and cannot, consequently, contravene the requirements of Article 123(2) EPC.

Consequently, the main request is admissible.

3.12 Since the main request is admissible, there is no need for the Board to decide on the other requests.
4. The grounds of opposition under Article 100(c) EPC do not prejudice the maintenance of the patent in the amended form of the main request.

5. Since the further grounds of opposition mentioned by the opponents have not yet been considered by the Opposition Division, the Board exercises its power to remit the case for further prosecution with respect to the outstanding formal and substantive issues, to give the parties the opportunity to defend their case before two instances (Article 111 EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance for further prosecution.

The Registrar:  
The Chairman:

C. Eickhoff  
R. Teschemacher