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**D E C I S I O N**  
**of 26 April 2001**

**Case Number:** T 0005/99 - 3.2.3  
**Application Number:** 93830293.2  
**Publication Number:** 0633435  
**IPC:** F25B 39/04, F28F 1/32

**Language of the proceedings:** EN

**Title of invention:**

Condenser for air-conditioning systems, in particular for motor vehicles

**Applicant:**

MAGNETI MARELLI CLIMATIZZAZIONE S.r.l.

**Opponent:**

Autokühler GmbH & Co. KG

**Headword:**

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**Relevant legal provisions:**

EPC Art. 83, 100(b)

**Keyword:**

"Disclosure - sufficiency (no) - two inconsistent definitions of a parameter disclosed"

**Decisions cited:**

T 0127/85

**Catchword:**

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Case Number: T 0005/99 - 3.2.3

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.3**  
**of 26 April 2001**

**Appellant:** Autokühler GmbH & Co. KG  
(Opponent) Hohler Weg 31  
DE-34369 Hofgeismar (DE)

**Representative:** Freiherr von Schorlemer, Reinfried, Dipl.-Phys.  
Karthäuser Strasse 5A  
DE-34117 Kassel (DE)

**Respondent:** MAGNETI MARELLI CLIMATIZZAZIONE S.r.l.  
(Proprietor of the patent) Frazione Masio, 24  
IT-10046 Poirino (Torino) (IT)

**Representative:** Quinterno, Giuseppe  
c/o JACOBACCI & PERANI S.p.A.  
Corso Regio Parco, 27  
IT-10152 Torino (IT)

**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 22 October 1998  
rejecting the opposition filed against European  
patent No. 0 633 435 pursuant to Article 102(2)  
EPC.

**Composition of the Board:**

**Chairman:** C. T. Wilson  
**Members:** J. du Pouget de Nadaillac  
J. P. B. Seitz

## Summary of Facts and Submissions

- I. The appeal is directed against the decision dated 22 October 1998 of an opposition division of the European Patent Office, which rejected the opposition filed against the European patent EP-B1-0 633 435. The grounds of opposition invoked by the opponent were insufficient disclosure of the invention, lack of novelty and lack of inventive step (Article 100(a) and (b) EPC).
- II. Claim 1 of the patent as granted reads as follows:
- "A condenser for air-conditioning systems, particularly for motor vehicles, comprising a group of tubes (14) secured to a pack of substantially flat fins (16) by means of mechanical expansion of the tubes (14) following their insertion in holes aligned in the fins (16), characterised in that the tubes (14) have an oblong cross-section without any flat walls, with a ratio of between 2.5 and 3.75 between the maximum dimension (b) and the minimum dimension (a) of the cross-section, and a ratio of between 15 and 30 between the maximum dimension (b) of the cross-section and the thickness(s) of the tube (14); and in that the ratio between the distance between the fins (p) and the thickness of each fin (t) is less than or equal to 11."
- III. The opponent (appellant) lodged the appeal and paid the corresponding fee on 21 December 1998. In his statement of grounds received on 19 February 1999, the same opposition grounds were invoked. As to the objection of insufficient disclosure, the appellant contended in particular that as the last feature of claim 1 only

mentioned an upper limit for the ration  $p/t$ , claim 1 covered also condensers with for example said ratio between 1 and 0, which clearly would not be possible technically.

In his response to the statement of grounds, the patentee, hereinafter the respondent, submitted in respect of this opposition ground that apparently, the appellant has erroneously interpreted the parameter  $p$  as being the fin density rather than the inter-fin distance. He moreover filed on 26 March 2001 two new claims 1 as auxiliary requests. These two claims essentially differ from claim 1 as granted in that the condenser is defined as being part of or used in an air conditioning system.

IV. Oral proceedings took place on 26 April 2001.

V. The appellant argued as follows:

In the decision under appeal, the first instance decided that the requirement of a sufficient disclosure was complied with, since a typical example of the invention was disclosed in the description of the contested patent. However, the object of a claim is to give a clear teaching of what has to be protected, and in the present case, the single given example is not sufficient for the following reason: according to Figure 2a of the patent in suit, the parameter  $p$  represents the fin pitch, which is the most commonly used parameter for the fins in this technical field, sometimes indirectly given by way of the fin density. If one then considers the fin density of 70 to 80 fins/dm given in the single example of the present invention, which is disclosed at the bottom of

column 5, and for example chooses the middle point of this range, that is to say 75 fins/dm, he will reach by calculation a ratio of 11.1, which not only is higher than the upper limit of the corresponding ratio given for this example, but further is outside the claimed range of said ratio. The person skilled in the art gets therefore lost in trying to look for the correct interpretation of the dimension  $p$ , since without any other precise example of the invention he does not know which part of the patent as a whole he can rely on.

VI. The respondent replied as follows:

The information given in Figure 2a is an error. The whole description of the patent in suit clearly indicates that  $p$  represents the distance between the tubes as expressly mentioned in the passage of column 5, lines 9 to 14 which deals with the definition of the five parameters of the present invention. Claim 1, also, defines  $p$  as being the distance between the fins. Following this definition and the values given in the single disclosed example of the invention, a ratio of 10.9 is obtained, thus inside the claimed range, so that there is no contradiction. The three examples in column 6 of the description concern test examples, which are outside the invention and thus could be deleted. Moreover, the objection of the appellant concerns the clarity of claim 1, although claim 1 is perfectly clear. Lack of clarity is not an opposition ground, so that the objection is to be rejected.

VII. The appellant requested that the decision under appeal be set aside and that the European patent EP-B1-0633 435 be revoked.

The respondent requested that the appeal be dismissed and that the patent be maintained as granted (main request), or on the basis of one of the auxiliary requests filed on 26 March 2001.

### **Reasons for the Decision**

1. The appeal is admissible.
  
2. The parameter  $p$  is an essential parameter of the present invention, as clearly indicated by the last feature of claim 1 as granted. In this claim, this parameter is defined as being the distance between the fins, which is by itself a clear definition, hereinafter called the definition A. However, the appellant has raised an objection under Article 83 EPC concerning the last feature of claim 1 as a whole, and more particularly its ratio  $p/t$ , and he has argued that the claimed requirement  $p/t < 11$  includes within its whole range inventions which could not be carried out, for example when  $p=0$  or  $p=1$ . Since the subject-matter of claim 1 concerns a condenser which requires fins with at least a certain space between them, the value  $p=0$  is for any person skilled in the art meaningless and thus would be obviously excluded. However, with  $p=1$ , the objection of the appellant can only be understood if a definition of the parameter  $p$  different from that of claim 1 was meant and, in fact, the appellant referred to Figure 2a of the patent, which discloses  $p$  as being the fin pitch (hereinafter definition B), and not the distance between two fins. It consequently appears that, on the one hand, the patent in suit gives two possible definitions of the parameter  $p$  and, on the other hand, that by means of

the ground of opposition according to Article 100(b) EPC, the appellant has indirectly pointed out a lack of clarity as to the definition of the parameter p. However, this lack of clarity is in the present case not directly a problem with respect to Article 84 EPC, but above all with Article 100(b) EPC which requires the European patent to disclose the invention **in a manner sufficiently clear and complete** for it to be carried out by a person skilled in the art. It is evident that, if the parameter p, which is one characteristic of the invention according to claim 1, is not clearly defined, the person skilled in the art cannot perform the invention. Thus, contrary to the respondent's opinion, the objection of the appellant in respect of Article 100(b) EPC is admissible and has to be examined (see moreover the decision T 127/85, OJ EPO 1989, 271).

3. As seen above, according to Article 100(b) EPC, it is the European patent as a whole (apart from the abstract according to Article 85 EPC), which is to be considered, and this article, as well as the rest of the EPC, does not give a greater weight to any part of the patent as far as the disclosure of the invention is concerned. Thus, even if claim 1 as such gives a clear definition of the parameter p, it has only to be considered as an element of the whole disclosure of the patent. It is further noted that, in the present case, no priority right has been claimed, so that no priority document exists.
  
4. Thus, what has to be examined is whether the person skilled in the art could obtain from the patent as a whole a clear definition of the parameter p, since clearly with the definition given in Claim 1 differing

from that provided by Figure 2a, the patent is inconsistent in this respect.

5. In addition to claim 1 and Figure 2a, the only passages of the patent application as originally filed which concern the parameter  $p$  are the last columns 5 and 6 of the version A1 of the published patent application. In column 5, first, the meaning of the different parameters  $a$ ,  $b$ ,  $s$ ,  $p$  and  $t$  is given,  $p$  being defined in the same way as in Claim 1, namely the distance between the fins (Definition A).

Then one example of the present invention follows in the passages bridging columns 5 and 6. In this example, it is not the distance between the fins which is given, but the fin density which is said to be between 70 to 80 fins/dm. The thickness of the fins in this example being 0.12 mm, it is indicated that in such a case the ratio  $p/t$  of a condenser having these dimensions would be such that  $p/t \leq 10.5$ . However, a calculation made on the basis of the given values, taking for example the middle point 75 of the fin density range 70-80, gives a ratio  $p/t$  of 11.1, when the definition B suggested by the given fin density is applied. The respondent, following the definition which should in his opinion be the correct one, namely the definition A, has demonstrated that a ratio of 10.9 is obtained, this time with the value 70 of the fin density range. In both cases, these ratios do not comply with the limit of 10.5, which in the description is disclosed for said example, so that the only example given for the present invention does not bring the person skilled in the art any nearer to being able to determine the intended meaning of the parameter  $p$ .



Then, in column 5 of the description, three examples of different heat exchanger networks are disclosed as test samples lying outside the scope of the present invention in order to show the negative results obtained with these samples compared with those of the present invention. For each example, the thickness of the fins and the fin density are given and are followed by the ratio  $p/t$  obtained from these values. However, when a calculation is made on the basis of these given dimensions or values, it becomes clear that the parameter  $p$  used in these test examples was not the distance between the fins, but the fin pitch (definition B) for the first two examples, the third example obviously containing an arithmetical error. The respondent has argued that these test examples are to be ignored since they do not concern the present invention. However, the fact is that they are disclosed for reasons of comparison and it must therefore be assumed that the same parameters have been used to calculate the same ratios as used to define the present invention. They are therefore to be considered.

6. Hence, a series of contradictions or errors are present within the whole disclosure of the present invention as originally disclosed. Figure 2a and the test examples at the end of the description lead the skilled reader to interpret parameter  $p$  as being the fin pitch (definition B), whereas Claim 1 and the definitions given in column 4 direct him towards the other definition, namely the distance between the fins (definition A). The only numerical example of the invention is of no help. Under these circumstances, it is not possible for a person skilled in the art to determine the correct meaning of the parameter  $p$  and thus to perform the present invention. The board also

sees no possibility of remedying such a deficiency.

7. Since the parameter p is referred to in claims 1 of all requests, this deficiency applies to them all. None of these requests is therefore allowable and there is no need to explain for each request separately.

## **Order**

### **For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:

A. Counillon

C. T. Wilson