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**Datasheet for the decision  
of 16 November 2006**

**Case Number:** T 0494/05 - 3.3.04

**Application Number:** 95200039.6

**Publication Number:** 0671465

**IPC:** C12G 1/00

**Language of the proceedings:** EN

**Title of invention:**

Process for obtention of must from bunches of grapes  
comprising at least one phase of centrifugation

**Patentee:**

NUOVA M.A.I.P.

**Opponent:**

Westfalia Separator Food Tee GmbH

**Headword:**

Obtention of must/NUOVA M.A.I.P.

**Relevant legal provisions:**

EPC Art. 56

**Keyword:**

"Inventive step - (yes)"

**Decisions cited:**

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**Catchword:**

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Case Number: T 0494/05 - 3.3.04

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.04  
of 16 November 2006

**Appellant:** Westfalia Separator Food Tee GmbH  
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**Representative:** Specht, Peter  
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**Respondent:** NUOVA M.A.I.P.  
(Patent Proprietor) MACCHINE AGRICOLE INDUSTRIALI PIERALISI S.P.A.  
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**Representative:** Raimondi, Margherita  
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**Decision under appeal:** Interlocutory decision of the Opposition  
Division of the European Patent Office posted  
25 February 2005 concerning maintenance of  
European patent No. 0671465 in amended form.

**Composition of the Board:**

**Chair:** M. Wieser  
**Members:** G. Alt  
D. S. Rogers  
B. Claes  
G. Weiss

## Summary of Facts and Submissions

- I. The appeal was lodged by the Opponent (Appellant) against the interlocutory decision of the Opposition Division, whereby the European patent No. 0 671 465 could be maintained in amended form pursuant to Article 102(3) EPC.
- II. The patent had been opposed under Article 100(a) EPC on the grounds of lack of novelty (Article 54 EPC) and lack of inventive step (Article 56 EPC).
- III. The Opposition Division had decided that the subject-matter of the claims of the main request before them, namely claims 1 to 3 as filed at the oral proceedings on 15 December 2004 met all requirements of the EPC.

Claim 1 read as follows:

" A process for the obtention of must from bunches of grapes comprising at least one phase of centrifugation of the said whole bunches as harvested for the separation of the bunches into must and pomace prior to subjecting the must to fermentation, characterized in that the centrifugation phase is implemented by a continuous centrifuge equipped with horizontal-axis scroll and rotating at a speed such as to exert on the liquid a centrifugal force not lower than 1500 times the force of gravity."

Dependent claims 2 and 3 referred to preferred embodiments of the process of claim 1.

IV. The Board expressed its preliminary opinion in two communications dated 24 January 2006 and 4 May 2006.

Oral proceedings were held on 16 November 2006 at the end of which the Chair announced the decision of the Board.

V. The Appellant requested that the decision under appeal be set aside and that the patent be revoked.

The Patent Proprietor (Respondent) requested that the appeal be dismissed.

VI. The present decision refers to the following documents:

(E1) Der Deutsche Weinbau, vol. 18, 1993, Sonderdruck, pages 1 to 4

(E2) Mitteilungen Klosterneuburg, vol.43, 1993, Sonderdruck, pages 1 to 11

(E4) Diplomarbeit F. Kern, Fachhochschule Wiesbaden/Geisenheim, May 1989, pages 1 to 90

(E9) E. Troost, Technologie des Weines, 6th Ed., 1988, Verlag Eugen Ulmer, Stuttgart, pages 56 to 59, and 120 to 121.

VII. The submissions made by the Appellant may be summarised as follows:

According to an embodiment of the claimed invention disclosed in column 4, line 57 of the patent in suit, the "product" is fed to the continuous centrifuge via a

pump. The "product" according to claim 1 is whole bunches of grapes as harvested. As a result of the mechanical stresses in the pump, whole bunches as harvested are crushed and stemmed, which means that the grapes are separated from the stems.

To the Appellant's knowledge there existed no pump which was able to transport bunches of grapes in such a gentle way so that whole bunches of grapes as harvested arrived at the centrifuge. It was therefore not possible that the centrifugation step was performed on whole bunches of grapes as harvested.

Accordingly the process of claim 1 differed from the process disclosed in document (E1), which represented the closest state of the art, only in so far as the grapes and the stems, although separated in the feeding pump, both arrived in the centrifuge. According to document (E1) the stems were separated and discarded in a stemming device that was installed before the centrifuge, so that only the grapes, whose cell walls were crushed by the mechanical stresses in the stemming device, arrived at the centrifuge.

Document (E1) reported that efficiency was significantly increased by separation of the stems which thus reduced the load due to solid materials present in the centrifuge. This statement was supported in so far as experiments with a higher load of solid material, namely with the stems, had been carried out which resulted in a lower performance of the centrifuge.

A person skilled in the art was aware that the extraction of the juice from grapes could be carried out with stemmed as well as with non-stemmed grapes, depending on the variety of the grapes, on their degree of maturity and the mode of their further processing. It was also known that must obtained from non-stemmed grapes resulted in wine of lower quality.

The process according to claims 1 to 3 was therefore obvious in the light of either document (E1) alone or in combination with the general knowledge of the skilled person as disclosed in documents (E4) and (E9).

VIII. The submissions made by the Respondent may be summarised as follows:

The process according to claim 1 comprised a centrifugation operation performed on whole bunches of grapes as harvested. This was also clearly formulated in the description. It could not be excluded that the skin of some of the grapes was slashed as a result of mechanical stress during storage and transport. However, the grapes were not separated from the stems. They arrived as whole bunches as harvested in the decanter. The patent did not contain a basis for the Appellant's interpretation that the grapes and stems were separated in a pump and both fractions were fed to the centrifuge.

The closest prior art was represented by document (E1). The problem to be solved was the provision of a simplified method for the obtention of must from grapes, as formulated in the appealed decision. The solution according to claim 1 was not obvious in the

light of document (E1) alone or in combination with any other prior art document on file. All documents referring to obtention of must from grapes by continuous centrifuges with a horizontal-axis scroll, explicitly mentioned the separation of stems as being an obligatory process step.

### **Reasons for the Decision**

1. Claim 1 is based on claims 1, 4 and 6 and page 3, lines 12 to 13 of the application as originally filed. Claims 2 and 3 are based on original claims 2 and 5.

By defining the bunches of grapes as being "whole bunches as harvested" the protection conferred by claim 1 has been restricted with regard to claim 1 as granted.

The claims meet the requirements of Articles 123(2) and 123(3) EPC. The Appellant did not raise any objection in this respect.

Moreover, clarity (Article 84 EPC) and novelty (Article 54 EPC) of the claimed subject-matter were not disputed by the Appellant. The Board thus has no reason to address these issues.

2. Claim 1 comprises "at least one phase of centrifugation of the said whole bunches as harvested for the separation of the bunches into must and pomace".

Column 3, lines 34 to 37 of the patent reads:

"As shown in figure 1, the process according to this invention is essentially comprised of a single centrifugation operation performed on the whole bunch as harvested."

3. The formulations used in the claim and in the relevant part of the description do not give room for an interpretation of the subject-matter of claim 1 which encompasses a process for the obtention of must from grapes wherein said grapes have been separated from the stems before they arrive at the centrifuge.

The Board notes that the Appellant has argued that an embodiment of the claimed invention, described on page 3, line 53, which uses a pump to feed the bunches of grapes to the centrifuge, to his knowledge, inevitably leads to the separation of grapes and stems as a result of the mechanical stress in the pump. However, according to the wording of claim 1 a process, which does not allow the centrifugation step to be performed on the whole bunches as harvested, is not encompassed by the scope of claim 1.

4. The Board considers document (E1) to represent the closest state of the art. It refers to a process using a decanter (a continuous horizontal centrifuge) for the obtention of must from grapes. Figure 1 on page 1 is a schematic presentation of the process, which includes a stemming step before the grapes are fed to the decanter. In this step the stems are separated from the grapes and discarded. The grapes, whose cell walls are slashed by mechanical stresses in the stemming device, are fed



to the decanter. In the sentence bridging the right and left columns on page 2, it is said that this slashing, which allows an efficient extraction of must in the decanter, could alternatively be obtained by pumping or milling the grapes.

5. The process according to claim 1 is distinguished from the disclosure in document (E1) in so far as the centrifugation step is performed on whole bunches of grapes as harvested. Thus, the claimed process does not comprise the use of a stemming device, which according to (E1) is situated before the decanter and in which the stems are separated from the grapes.

6. The problem to be solved by the present invention is seen in the provision of a simplified method for the obtention of must from grapes by centrifugation.

This problem has been solved by the process of claim 1, which does not use a stemming device. Whole bunches of grapes as harvested with the grapes attached to the stems are fed to the centrifuge.

7. The question to be answered is therefore, whether a skilled person in order to solve the technical problem stated above would have arrived at the claimed solution, namely the omission of the stemming step, in an obvious way.

Document (E1), on page 3, directly above figure 3, showing the construction of a decanter, holds that the condition in which the starting product arrives at the decanter is of great importance for the processing of wine. It is said that the separation of stems and other

coarse particles is indispensable ("Das Entfernen von Rappen und sonstigen groben Teilen is unentbehrlich.")

Thus, the skilled person reading the closest prior art document would not get an incentive to amend its technical disclosure and to arrive at the claimed subject-matter in an obvious way.

In the same way, document (E2), also referring to grape extraction using a decanter, discloses that the grapes generally were stemmed before they were fed to the decanter (page 4, right column, second paragraph).

Document (E4) refers to the use of a press (Bandpresse) and a decanter for the obtention of must from grapes. Chapter 4, starting on page 40, reports of experiments carried out with different extraction devices. The use of a decanter is described in chapter 4.1.7 (pages 54 to 57). All experimental set ups disclosed in document (E4) comprise a stemming device to separate the stems from the grapes before the latter were fed to the various extraction devices (see figure 25 on page 63).

8. The Appellant argued that it belonged to the skilled person's general knowledge that must for the preparation of wine could be obtained from stemmed as well as from non-stemmed grapes. Depending on the variety of the grapes, the degree of their maturity and the mode of the further processing of the must, the skilled person would have decided to use either stemmed or non-stemmed grapes. He referred in this respect to the disclosure in documents (E4) and (E9). Document (E4) describes the function and the construction of stemming machines (chapter 1.1.2 on

pages 12 and 13). It mentions that stemming of red grapes is indispensable as they are heated and fermented before pressing, but that white grapes, depending on variety, maturity and the mode of any further processing, may or may not be stemmed before pressing. Chapter 1.1.2 of document (E4) does not deal with the obtention of must from grapes by a centrifugation operation.

Document (E9) is a wine technology textbook. The passages thereof cited by the Appellant refer to stemming devices (pages 56 to 59) and to general rules concerning the pressing of grapes (page 121). Like document (E4) it holds that white grapes may be processed either in stemmed or non-stemmed form and that the decision of the skilled person in this respect depends on various parameters. The cited passages do not refer to the obtention of must from grapes by a centrifugation step.

9. The Board notes that all prior art documents on file which refer to the use of continuous horizontal axis centrifuges (decanter) for the obtention of must from grapes refer to the stemming of the grapes as being an indispensable working step before the grapes are fed to the centrifuge.

The citations quoted by the Appellant, which refer to the possibility of obtaining must from grapes without previous separation of stems from grapes, are of a more general nature and do not mention the use of a horizontal axis centrifuge.

10. In the light of the disclosure in the prior art documents on file, the Board arrives at the judgement that a skilled person trying to solve the underlying technical problem by providing a simplified method for the obtention of must from grapes by centrifugation, was given no hint to modify the teaching of the closest prior art document (E1) by omitting the stemming step which is disclosed therein as being indispensable.

Therefore the subject-matter of claims 1 to 3 involves an inventive step and meets the requirements of Article 56 EPC.

## **Order**

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

The appeal is dismissed.

Registrar:

Chair:

P. Cremona

M. Wieser