

**Internal distribution code:**

- (A)  Publication in OJ  
(B)  To Chairmen and Members  
(C)  To Chairmen  
(D)  No distribution

**Datasheet for the decision  
of 31 May 2011**

**Case Number:** T 1837/09 - 3.2.07

**Application Number:** 02025031.2

**Publication Number:** 1312699

**IPC:** C23C 22/00

**Language of the proceedings:** EN

**Title of invention:**

Pre- treatment tunnel and method of preparing extrusions or section bars for being powder or liquid coated

**Patent Proprietor:**

Trevisan Cometal S.p.A.

**Opponent:**

Trasmetal S.p.A.

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 54

**Relevant legal provisions (EPC 1973):**

-

**Keyword:**

"Novelty (main and auxiliary request - no)"

**Decisions cited:**

-

**Catchword:**

-



Case Number: T 1837/09 - 3.2.07

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.07  
of 31 May 2011

**Appellant:** Trevisan Cometal S.p.A.  
(Patent Proprietor) Via Meucci 4  
I-37100 Verona (IT)

**Representative:** Rapisardi, Mariacristina  
Ufficio Brevetti Rapisardi S.r.l.  
Via Serbelloni 12  
I-20122 Milano (IT)

**Respondent:** Trasmetal S.p.A.  
(Opponent) Viale Monza 338  
I-20128 Milano (IT)

**Representative:** Giavarini, Francesco  
Zanoli & Giavarini S.r.l.  
Via Melchiorre Gioia, 64  
I-20125 Milano (IT)

**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 17 July 2009  
revoking European patent No. 1312699 pursuant  
to Article 101(3)(b) EPC.

**Composition of the Board:**

**Chairman:** H. Meinders  
**Members:** H. Hahn  
E. Dufrasne

## Summary of Facts and Submissions

- I. The appellant (patent proprietor) lodged an appeal against the decision of the Opposition Division to revoke the European patent EP-B-01 312 699.
- II. The following documents of the opposition proceedings are cited in the present decision:
- E1 = GB-A-883 993
- E5 = Videotape "ABB. Flexible Automation - Painting Application" (July 1999)
- E9 = Video "Trasmetal - Washing Machine Painting line, Aluminium Profiles Vertical Painting Line" (October 2001)
- III. The opposition had been filed against the patent in its entirety under Article 100(a) EPC, for lack of novelty and inventive step, under Article 100(b) EPC, that the patent does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by the person skilled in the art and under Article 100(c) EPC, that the patent extends beyond the content of the application as originally filed.

The Opposition Division found that claims 1 and 2 of the main request as filed at the oral proceedings of 8 July 2009 met the requirements of Article 123(2) EPC. The Opposition Division considered that the subject-matter of claims 1 and 2 of the main request was novel with respect to E1 and E5/E9 but lacked an inventive step over the teaching of E1 in combination with the common general knowledge of the person skilled in the art. Amended claims 1 and 2 of the first and second

auxiliary requests, both filed at the oral proceedings, were considered to contravene Article 123(2) EPC.

- IV. Independent claim 1 of the main request as filed with the grounds of appeal reads as follows (amendments as compared to claim 1 of the patent as granted are in bold; emphasis added by the Board):

"1. A pre-treatment method of preparing metal workpieces for a coating process, including: conveying, along a pre-treatment path in sequence each workpiece suspended by <<->> overhead conveyor means in a vertical orientation; continuously pouring, **by overflow or exit from suitable slits**, on the tops of opposing surfaces of said workpieces by two parallel channels placed on opposing sides of said workpieces, at a level below said overhead conveyor means, a pre-treatment corrosive liquid along the direction of said pre-treatment path so as to cover entirely said surfaces in an almost uniform manner and percolate from their top to their bottom; and re-circulating said pre-treatment liquid discharged by said workpieces; characterized by: pouring continuously said liquid in the same time on a plurality of said workpieces; and in that during this continuously pouring [*sic*] said workpieces are moved in sequence by said direction of said pre-treatment path."

- V. Independent claim 1 of the first auxiliary request as filed with the grounds of appeal reads as follows (amendments as compared to claim 1 of the main request are in bold; emphasis added by the Board):

"1. A pre-treatment method of preparing metal workpieces for a coating process, including: conveying, along a pre-treatment path in sequence each workpiece suspended by <-> overhead conveyor means in a vertical orientation; continuously pouring, by overflow or exit from suitable slits, on the tops of opposing surfaces of said workpieces by two parallel channels placed on opposing sides of said workpieces, at a level below said overhead conveyor means, a pre-treatment corrosive liquid along the direction of said pre-treatment path so as to cover entirely said surfaces in an almost uniform manner and percolate from their top to their bottom; and re-circulating said pre-treatment liquid discharged by said workpieces; characterized by: pouring continuously said liquid in the same time on a plurality of said workpieces; and in that during this continuously pouring [sic] said workpieces are moved in sequence by said direction of said pre-treatment path, **such that each workpiece is covered by the same amount of liquid in an almost uniform manner from its top to its bottom.**"

VI. With letter dated 11 February 2011 submitted with fax on the same day the appellant responded to the respondent's reply to the grounds of appeal in which the latter also requested that the appeal proceedings be expedited since the respondent and it are involved in litigations before Italian Courts in connection with that patent.

VII. With a communication dated 14 February 2011 and annexed to the summons to oral proceedings the Board presented

its preliminary opinion with respect to the claims 1-4 of the main and first auxiliary requests.

Amongst others the Board stated that the subject-matter of claim 1 of both requests appeared to lack novelty over the disclosure of E1.

VIII. With fax dated 27 May 2011 the appellant informed the Board that it would not be attending the oral proceedings.

IX. Oral proceedings before the Board were held on 31 May 2011. Although having been duly summoned the appellant did not attend the oral proceedings, as announced with its fax dated 27 May 2011. In accordance with Rule 115(2) EPC and Article 15(3) RPBA the proceedings were continued without that party. In these proceedings, the Board referred to its communication and the novelty objection made therein concerning the subject-matter of claims 1 of both requests and that the appellant had not submitted any counter-arguments as a response thereto. The respondent did not submit any further arguments in this respect. As a result the requests are as follows:

- (a) The appellant requested in the written proceedings that the decision under appeal be set aside and that the patent be maintained on the basis of one of the main and the first auxiliary requests, both filed with letter dated 26 November 2009.
- (b) The respondent requested that the appeal be dismissed.

At the end of the oral proceedings the Board announced its decision.

- X. The appellant argued in writing essentially as follows with respect to E1:

Novelty of claim 1 of the main request has been acknowledged by the Opposition Division in its impugned decision. E1 does not disclose all of the features of claim 1, particularly the features of

- pouring the liquid continuously,
  - pouring on a plurality of pieces at the same time,
- and

- at least the possibility of moving the workpieces during pouring

cannot be derived from the photo-printed circuit embodiment. The exposure step of this embodiment requires exact timing and exposure over the whole surface of the workpiece at the same time, so that it would not be possible to move the workpiece during treatment which therefore must be stopped before movement to the next station. E1 does not disclose that the workpieces are moved in sequence since E1 requires a stepwise movement thereof whereas the patent in suit requires movement at least some point during the pouring of the liquid. There is no indication of moving the workpieces during the pouring. E1 only teaches a "stop-and-go" operation, i.e. the pouring is stopped while the workpiece is moved from one station to the next (see page 2, lines 71 to 85). Figure 1 of E1 shows the same workpiece in three different positions along the conveyor but not a plurality thereof. As admitted by the respondent there is also no literal support for this feature.

The subject-matter of claim 1 of the main and first auxiliary request is therefore novel with respect to the disclosure of E1.

XI. The respondent argued essentially as follows with respect to E1:

E1 discloses (see page 2, lines 50 to 86) continuous pouring of the liquid while the workpiece is moved along the treatment direction. With respect to the second feature it is pointed out that the document should not be limited to its literal wording. Although E1 describes the sequence of operation with reference to a single workpiece it is clear to the person skilled in the art that the method and plant of E1 are used, or at least can be used, for treating more than one workpiece at the same time (see figure 1). Therefore claim 1 of the main request lacks novelty over E1. The same conclusion is valid for the subject-matter of claim 1 of the first auxiliary request.

## **Reasons for the Decision**

### 1. *Expediting the appeal procedure*

As the reasons submitted by the respondent with letter of 9 April 2010 are considered sufficient by the Board, it has accelerated the proceedings, as soon as the interruption of the proceedings by the Legal Division was ended on 1 December 2010.



2. *Allowability of amendments (Articles 84, 123(2) and 123(3) EPC)*

Since the Board comes to the conclusion that the subject-matter of claim 1 of both requests lacks novelty (see point 2 below) there is no need to verify whether or not the claims of these requests or the amendments made therein comply with Articles 84, 123(2) and (3) EPC.

3. *Novelty (Article 54 EPC)*

*Main request*

3.1 E1 relates to an apparatus and a method for treating a surface of a workpiece with a liquid, and specifically to such an apparatus suitable for a transfer machine in which a workpiece is moved from one station at which a manufacturing operation is performed upon it to another such station (see page 1, lines 8 to 15).

According to the general disclosure of E1 there is provided a vessel for containing liquid, provided with an opening to serve as an overflow, the edge of the opening having a lowest part which is horizontal and provided along its length with an outwardly directed lip from which the liquid can fall freely in a cascade, a receiver for collecting liquid flowing over the lip, means for transferring liquid from the receiver to the vessel, and means for moving a workpiece to a position below the lip in which liquid flowing from the lip will pass over a surface of the workpiece before entering the receiver (see page 1, lines 16 to 29). When the means for moving the workpiece is adapted to locate a

surface thereof in a substantially vertical plane, parallel to, below, and adjacent the edge of the lip, the receiver may be a trough situated vertically below the lip and extending in horizontal direction beyond the ends of the lip; and a pump may be used to withdraw liquid from the trough and pass it through a duct into a channel connected to the vessel (see page 1, lines 41 to 55 and claims 1-5).

Such a transfer machine may be provided with more than one such apparatus, with one trough serving as a receiver in combination with more than one vessel. One vessel may be provided at each of a number of stations of a machine, and a single trough to serve as receiver to all the vessels. Such an arrangement is suitable for giving a workpiece several treatments with the same liquid (see page 1, lines 56 to 82). Two vessels may be situated at one station, and when placed with their lips facing one another may be used to treat simultaneously two opposite surfaces of a workpiece (see page 1, lines 83 to 86).

The described apparatus has the advantage to provide a thorough and even etching action across the whole face of a printed circuit board at the etching stage (see page 3, lines 5 to 9).

The specific embodiment according to figures 1 and 2 comprises one trough 12 with liquid which through an opening 13 via pipe 14 is pumped via pump 15 through a duct 16 into four vessels or funnels 18 having a lip 21 for the overflow of said liquid which then falls into the trough (see page 2, lines 1 to 59). The workpiece 23 is transported with a workpiece carrier 26 mounted

on a roller 25 running on a horizontal rail 24 so that it can be moved along the rail, e.g. by driving means, so that the workpiece can be brought into the required position for treatment with the liquid flowing over the lip of the funnel at the first station, after one period of time allowed by the machine has elapsed, the workpiece is moved horizontally into the corresponding position of the second funnel situated at the second station, and when the workpiece has been treated at all four stations it is moved horizontally beyond the trough (see figures 1 and 2, and page 2, lines 60 to 87).

3.1.1 The embodiment of figures 1 and 2 shows a number of workpieces 23 before the four identical funnels 18, each of them having only **a single channel** from which the liquid during operation of the machine is **continuously poured** onto the workpiece, by exiting from an overflow 21. Figure 1 shows a number of workpieces, which are apparently treated at the same time with liquid being poured from identical funnels so that the amount of the liquid being poured at the same time onto the three workpieces is considered to be identical for all of them. From the quoted passages on page 2, lines 50 to 55 and lines 66 to 79 of E1: *"When sufficient liquid is introduced into the trough 12 and the pump 15 put into operation, liquid is raised in all funnels 18 with minimum turbulence and flows over the lips 21 of the funnels to fall in a cascade into the trough."* and *"From the workpiece carrier a laminar workpiece 23 may be vertically suspended in a plane parallel to the long side of the trough. Thus when the workpiece carrier 26 is moved along the rail, for example by driving means provided in the transfer*

*machine, the workpiece may be brought by horizontal movement into the required position for treatment by liquid flowing over the lip 21 of the funnel at the first station, that is with the surface to be treated parallel to, below, and adjacent to the edge of the lip of the first funnel. The liquid flowing over the lip of the funnel then passes in a cascade down to the surface to be treated.*" it is clear that **the workpieces 23 are moved** in sequence (one behind the other) into the required positions for treatment with the liquid **while the liquid is continuously poured** from the described lips 21.

The appellant's arguments to the contrary, i.e. a "stop-and-go" operation, therefore cannot hold since E1 does not require a stepwise movement but it simply requires a sufficient (total) residence time in each treatment zone that can also (partly) take place while moving the workpiece into the position for treatment. The patent in suit is silent with respect to anything that would support the interpretation that "moving" should be interpreted as "continuously moving". Furthermore, it has to be assumed that the velocity of movement of the workpieces into the positions for treatment with the liquid according to E1 is always identical, because only then each point of the surface is in contact with said liquid for the same time - even if there would be a stepwise operation mode while the liquid is continuously poured - so that an even treatment of the entire surfaces is to be expected. This consideration, however, holds true for the method according to claim 1 of the main request.

Furthermore, taking account of the fact that the apparatus comprises four identical funnels comprising the same recirculated treatment liquid in which each workpiece is treated (see page 2, lines 80 to 87) and the increase of productivity when treating four workpieces at the same time it is clear that figure 1 shows a plurality of workpieces and not just a single workpiece at different positions of the apparatus.

3.1.2 In view of the limited spacings between two consecutive workpieces as shown in figure 1, it is clear that during such a movement there will be periods in time that two consecutive workpieces (i.e. **a plurality of workpieces**) are (partly) in one station and are **in sequence continuously poured** over with said liquid from two consecutive funnels **at the same time**. The wording of claim 1 of the main request does not exclude such an embodiment.

3.1.3 Therefore, if, as suggested in E1 at page 1, lines 83 to 86, such a station is equipped with two vessels, funnels and lips to pour liquid over two opposed sides of the workpiece simultaneously, this embodiment anticipates the subject-matter of claim 1 of the main request entirely. Claim 1 of the main request therefore lacks novelty (Article 54 EPC).

3.1.4 The above reasoning was in essence present in the preliminary opinion of the Board, sent to the parties with letter of 14 February 2011 to which the parties had the opportunity to react.

*First auxiliary request*

- 3.2 Claim 1 of the first auxiliary request differs from that of the main request in the additional feature **"such that each workpiece is covered by the same amount of liquid in an almost uniform manner from its top to its bottom"** (see point V above).
- 3.2.1 This additional feature defines, however, only the result of continuously pouring the liquid in a sufficient amount from the two vessels on the top of the workpieces. Furthermore, in order to obtain an even treatment of both surfaces it is implicit that each workpiece should be covered by the same amount of liquid in a uniform manner from its top to its bottom.
- 3.2.2 This additional feature of claim 1 of the first auxiliary request likewise does not exclude the embodiment of E1 as described in point 3.1.2 above.
- 3.2.3 Consequently, the same conclusion concerning the method of E1 is valid with respect to the subject-matter of claim 1 of the first auxiliary request. Therefore the subject-matter of claim 1 of the first auxiliary request lacks novelty over E1 either (Article 54 EPC).

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:

G. Nachtigall

H. Meinders