Datasheet for the decision of 14 June 2007

Case Number: T 1257/05 - 3.2.07
Application Number: 99120047.8
Publication Number: 0995703
IPC: B65G 53/56

Language of the proceedings: EN

Title of invention:
Multi-way distribution manifold, particularly for the automated selective connection of a plurality of storage containers to a plurality of molding machines in plastics processing plants

Patentee:
MORETTO P.A. S.r.l.

Opponent:
Werner Koch Maschinentechnik GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56, 123(2), 123(3)
RPBA Art. 10b(1), 10b(3)

Keyword:
"Novelty - no"
"Inventive step - no"
"Auxiliary requests filed during oral proceedings - not admitted into the proceedings"

Decisions cited:
-

Catchword:
-
Case Number: T 1257/05 - 3.2.07

DECISION
of the Technical Board of Appeal 3.2.07
of 14 June 2007

Appellant: Werner Koch Maschinentechnik GmbH
(Opponent)
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Respondent: MORETTO P.A. S.r.l.
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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 20 July 2005 rejecting the opposition filed against European patent No. 0995703 pursuant to Article 102(2) EPC.

Composition of the Board:
Chairman: H. Meinders
Members: P. O'Reilly
C. Holtz
Summary of Facts and Submissions

I. Opposition was filed against European patent No. 0 995 703 as a whole, based on Article 100(a) EPC (lack of novelty and lack of inventive step).

The opposition was rejected. The opposition division held that the subject-matter of claim 1 of the patent as granted was novel and involved an inventive step.

II. The appellant (opponent) filed an appeal against that decision.

III. Oral proceedings were held before the Board on 14 June 2007.

IV. The appellant requested that the decision under appeal be set aside and the patent be revoked.

The respondent (proprietor) requested that the appeal be dismissed. The respondent alternatively requested that the decision under appeal be set aside and the patent be maintained in amended form on the basis of one of the sets of claims according to the first to fourth auxiliary requests filed during the oral proceedings before the Board.

V. The independent claim of the patent as granted (main request) reads as follows:

"1. A distribution manifold, particularly for the automated selective connection of a plurality of storage containers to a plurality of molding machines, characterized in that it comprises a central connector
which is interposed between a first section for drawing plastic material from said containers and a second section for conveying the material toward said machines, at which it has, respectively, an inlet and an outlet, each one of said first and second sections comprising a respective first and second series of couplings, each of which can be connected to the end of a duct and can be moved by an actuation means, said actuation means selectively actuating each one of the couplings of said first and second series, along planes which are radial with respect to the corresponding opening of said central connector, from a retracted inactive position to an active position in which the coupling is inserted in the corresponding inlet/outlet of said central connector."

The independent claim of the first auxiliary request reads as follows (amendments when compared to claim 1 of the main request are depicted in bold or struck through):

"1. A distribution manifold, particularly for the automated selective connection of a plurality of storage containers to a plurality of molding machines, characterized in that it comprises a central connector which is interposed between a first section for drawing plastic material from said containers and a second section for conveying the material toward said machines, at which it has, respectively, an inlet and an outlet, each one of said first and second sections comprising a respective first and second series of couplings, each of which can be connected to the end of a duct and can be moved by an actuation means, said actuation means selectively actuating each one of the couplings of said first and second series, along planes which are radial
with respect to the corresponding opening of said central connector, from a retracted inactive position to an active position by which the coupling is inserted in the corresponding inlet/outlet of said central connector."

The independent claim of the second auxiliary request reads as follows (amendments when compared to claim 1 of the main request are depicted in bold):

"1. A distribution manifold, particularly for the automated selective connection of a plurality of storage containers to a plurality of molding machines, characterized in that it comprises a central connector which is interposed between a first section for drawing plastic material from said containers and a second section for conveying the material toward said machines, at which it has, respectively, an inlet and an outlet, each one of said first and second sections comprising a respective first and second series of couplings, each of which can be connected to the end of a duct and can be moved by an actuation means, said actuation means selectively actuating each one of the couplings of said first and second series, along planes which are radial with respect to the corresponding opening of said central connector, from a retracted inactive position to an active position in which the coupling is inserted in the corresponding inlet/outlet of said central connector, said actuation taking place by means of a linkage constituted by an articulated quadrilateral which is formed by two parallel linkages which are hinged to the coupling at a first end and to the supporting bracket at the opposite end, the articulation means being hinged to one of said linkages."
The independent claim of the third auxiliary request reads as follows (amendments when compared to claim 1 of the second auxiliary request are depicted in bold or struck through):

"1. A distribution manifold, particularly for the automated selective connection of a plurality of storage containers to a plurality of molding machines, characterized in that it comprises a central connector which is interposed between a first section for drawing plastic material from said containers and a second section for conveying the material toward said machines, at which it has, respectively, an inlet and an outlet, each one of said first and second sections comprising a respective first and second series of couplings, each of which can be connected to the end of a duct and can be moved by an actuation means, said actuation means selectively actuating each one of the couplings of said first and second series, along planes which are radial with respect to the corresponding opening of said central connector, from a retracted inactive position to an active position in which the coupling is inserted in the corresponding inlet/outlet of said central connector, said actuation taking place by in which said actuation means are pistons, each piston is fixed to one of said brackets and actuates one of said couplings by means of a linkage, said coupling being in turn coupled to the end of a duct, and said linkage is constituted by an articulated quadrilateral which is formed by two parallel linkages which are hinged to the coupling at a first end and to the supporting bracket at the opposite end, the articulation means end of the stem of said piston being hinged to one of said linkages."
The independent claim of the fourth auxiliary request reads as follows (amendments when compared to claim 1 of the third auxiliary request are depicted in bold or struck through):

"1. A distribution manifold, particularly for the automated selective connection of a plurality of storage containers to a plurality of molding machines, characterized in that it comprises a central connector which is interposed between a first section for drawing plastic material from said containers and a second section for conveying the material toward said machines, at which it has, respectively, an inlet and an outlet, each one of said first and second sections comprising a respective first and second series of couplings, each of which can be connected to the end of a duct and can be moved by an actuation means, said actuation means selectively actuating each one of the couplings of said first and second series, along planes which are radial with respect to the corresponding opening of said central connector, from a retracted inactive position to an active position in which the coupling is inserted in the corresponding inlet/outlet of said central connector, in which and it comprises a frame provided with a gap crossed by said tubular central connector, said frame forming said first section for drawing plastic material at one end and said second section for conveying said plastic material at the other end, and it comprises supporting brackets which are fixed to the frame at each one of said first and second sections and are arranged all around the central connector so as to form a circular configuration, a coupling with the respective actuation means being operatively associated with each
one of said brackets, and said actuation means are pistons, each piston is fixed to one of said brackets and actuates one of said couplings by means of a linkage, said coupling being in turn coupled to the end of a duct, and said linkage is constituted by an articulated quadrilateral which is formed by two parallel linkages which are hinged to the coupling at a first end and to the supporting bracket at the opposite end, the end of the stem of said piston being hinged to one of said linkages."

VI. The documents cited in the present decision are the following:

D1: WO-A-98/12140

D2: DE-C-4 224 408

VII. The arguments of the appellant may be summarised as follows:

(i) The subject-matter of claim 1 of the main request lacks novelty over the disclosure of D2. The respondent acknowledges that all the features of claim 1 are known from the document with the exception of the features whereby: (a) "the couplings are moved ... along planes which are radial with respect to the corresponding opening of said central connector" and (b) "to an active position in which the coupling is inserted in the corresponding inlet/outlet of said central connector". 
Feature (a), however, is disclosed in D2 since the couplings 10a, 11a move in a linear radial direction which is a movement in a radial plane in accordance with feature (a), which does not require a two-dimensional movement. Also, feature (b) is disclosed in D2 which mentions a bayonet connection for the coupling. A bayonet connection inherently means that an element is inserted into another element so that the skilled person would understand that in the apparatus of D2 the ducts 10, 11 are inserted into the opening 15 as a result of this bayonet connection.

(ii) The subject-matter of claim 1 of the main request lacks an inventive step in the case that the Board considers that the above-mentioned bayonet connection does not necessarily involve an insertion of the coupling into the corresponding inlet/outlet. The nearest prior art document is D2. The problem to be solved by the feature that: "to an active position in which the coupling is inserted in the corresponding inlet/outlet of said central connector" is to increase the tightness of the connection to the central opening. The skilled person when considering the disclosure of a bayonet connection in D2 will be aware that such a connection is normally used when one element is inserted in another. The skilled person will therefore adopt this insertion arrangement when implementing the bayonet connection disclosed in D2 and hence arrive at an apparatus having the features of claim 1.
(iii) The auxiliary requests filed at the oral proceedings should not be admitted into the proceedings. They are so late filed that the appellant does not have sufficient time to carry out an examination of the amendments for compliance with Article 123(2) EPC. A superficial examination shows that there could be problems at least in this respect.

Claim 1 of the first auxiliary request includes new wording which does not appear explicitly in the patent and which may therefore not comply with this article.

Claim 1 of the second auxiliary request takes some of the features from dependent claims 5 and 6 but does not include all their features so that compliance with this article is again in doubt.

Claim 1 of the third auxiliary request is based on a combination of claims 4, 5 and 6 as granted with claim 1. However, these dependent claims were not dependent on the still existing dependent claim 2, and dependent claims 7 to 10 were not dependent on claims 4, 5 and 6 so that the amendment creates new combinations of features from the dependent claims which were not explicitly contained in the granted claims. The new combinations require careful consideration for compliance with this article.
The fourth auxiliary request, which was filed after the first three auxiliary requests had been discussed for admissibility, is simply filed too late.

VIII. The arguments of the respondent may be summarised as follows:

(i) The subject-matter of claim 1 of the main request is novel over the disclosure of D2. D2 does not disclose the features of this claim whereby: a) "the couplings are moved ... along planes which are radial with respect to the corresponding opening of said central connector" and b) "to an active position in which the coupling is inserted in the corresponding inlet/outlet of said central connector".

D2 only shows a radial linear movement of the coupling which is not a movement along a plane since it does not have the two components of movement necessary to correspond to a movement along a plane. Also, there is no disclosure of an insertion movement. Although D2 discloses a bayonet connection there is no indication of how this connection is to be effected. A bayonet could be provided to press the couplings 10a, 10b around the opening 15 without there being any insertion thereof.

(ii) The subject-matter of claim 1 of the main request involves an inventive step. The problems solved are increasing tightness and decreasing wear. There is no indication in D2 of solving these
problems. The bayonet fitting mentioned in D2 does not necessarily involve an insertion step. D2 discloses many means for increasing tightness, e.g. applying the pressure of a piston, which do not involve an insertion so the skilled person has no reason to think of providing an insertion. If such an insertion were to be provided then this would involve the provision of complicated actuating machinery, which would be undesirable in the apparatus according to D2.

(iii) The auxiliary requests should be admitted into the proceedings. They are only filed during the oral proceedings since objections were raised under Article 123(2) EPC against the auxiliary request which was filed before the oral proceedings.

The amendment to claim 1 of the first auxiliary request is only a clarification because of points raised in the discussion of the main request but then withdrawn in the oral proceedings.

Claim 1 of the second auxiliary request is a combination of claims 1, 5 and 6 as granted whereby the feature of the piston actuating the linkage has been omitted since it is not essential. No new issues are raised in the oral proceedings before the Board.

Claim 1 of the third auxiliary request is a combination of claims 1, 4, 5 and 6 as granted and solves the problems of wear and tightness. The reference in the claim to "said brackets" without
a corresponding antecedent can be understood by referring to the description.

Claim 1 of the fourth auxiliary request is a combination of claims 1, 2, 3, 4, 5 and 6 as granted. Although the dependent claims were not all dependent upon each other they disclose extra features which can optionally be combined.

Reasons for the Decision

Main request

1. Novelty

1.1 The respondent alleges lack of novelty of the subject-matter of claim 1 over D2. It is common ground between the parties that this document discloses all the features of claim 1 apart from the features whereby:

(a) "the couplings are moved ... along planes which are radial with respect to the corresponding opening of said central connector" and

(b) "to an active position in which the coupling is inserted in the corresponding inlet/outlet of said central connector".

1.2 The respondent argued that feature (a) is not disclosed in D2 since the couplings disclosed in D2 have only a linear, radially directed movement which is hence not a movement along a radial plane. The Board cannot agree with the respondent in this respect. The movement
disclosed in D2 is indeed linear and radially directed. However, this does not mean that it is not a movement along a plane and in particular along the plane which is radial with respect to the central opening. The respondent considered that the movement would only then be along this plane if there were both a radial and an axial component to the movement which resulted in a two-dimensional movement. The Board cannot agree that the requirement that the movement is along a particular plane requires that it has components in the two dimensions. Also a linear radial motion is along the radial plane, i.e. does not leave the plane.

The Board concludes that feature (a) is disclosed in D2.

1.3 The appellant argued that feature (b) is disclosed in D2 since the apparatus disclosed in D2 has a bayonet connection for the couplings 10a, 11a, and a bayonet connection implies that an element is inserted and then rotated. The appellant concluded that the connecting ducts 10, 11 must be inserted into the opening 15. In this respect the appellant argued that the dashed lines passing through the couplings 10a, 10b in figure 1 supported its view.

D2 describes a device in which couplings 10a, 11a for ducts 10, 11 are slid over a plate and are brought into register with an opening 15 in the plate. If a vacuum is present in a duct then an attracting force is exerted on the couplings towards the plate (see column 4, lines 58 to 62). In figures 1 and 3 the couplings are shown seated around the exterior of the opening and it is not possible to discern any insertion of the ducts into the opening.
The document further describes possibilities to increase the pressing force on the couplings. Mechanical or electromechanical methods with pressure bearings, bayonet connections, piston pressure, permanent magnets and electromagnets (see column 4, line 25 to column 5, line 16) are mentioned. For none of these possibilities is there any explicit indication of an insertion of a duct into the opening. The Board cannot follow the argument of the appellant that a bayonet connection must imply an insertion of a duct into a hole. There are no details whatsoever in D2 as to how the bayonet connection should be effected. Under a bayonet connection the Board understands a connection which involves an axial movement and a rotational movement of an element such that the element is secured against axial movement. It is quite possible in the device according to D2 that the bayonet connection is arranged external to the opening and merely presses the coupling around the exterior of the opening. Given that the rest of the disclosure of D2 is directed to the coupling sealing around the opening and that there is no indication as to how the bayonet coupling should be effected, it must be concluded that there is no disclosure, explicit or implicit, of the duct or coupling being inserted into the opening.

The appellant made reference to the dashed lines visible in figure 2 which pass through the couplings 10a, 11a. However, these lines are not mentioned in the description and may only indicate the existence of internal passages in the couplings without implying any further constructional features. According to the description in column 3, lines 58 and 59, the ducts 10,
are held in the couplings 10a, 11a, respectively. There is no indication that they should be held for sliding axial movement as argued by the appellant.

The Board concludes that feature (b) is not disclosed in D2.

1.4 Therefore, the subject-matter of claim 1 is novel in the sense of Article 54 EPC.

2. Inventive step

2.1 The closest prior art is represented by D2 which discloses all the features of claim 1 with the exception of the feature (b) as discussed above with respect to novelty.

2.2 The appellant suggested that the problem to be solved is to increase the tightness. This would be necessary if the flowable material, which the device according to D2 is intended to transport, were to be a very fine powder. The Board agrees that this is the problem to be solved. The respondent argued that the problem to be solved was to increase tightness and to reduce wear. The reduction of wear was achieved according to the respondent by feature (a). However, as already established above with respect to novelty the Board considers that this feature is already known from D2 so that this problem cannot be the problem to be solved when the only distinguishing feature is feature (b).

2.3 In the opinion of the Board it is well known that inserting a coupling into an opening, as opposed to placing it around the opening increases the tightness
and indeed this is the normal way of effecting such connections. In D1, which is concerned with transporting fluids, there is a plug entering a socket valve (see page 5, lines 2 to 4). Since the apparatus according to D1 transports fluids a good connection is necessary, as would be the case with fine powders. The skilled person would thus apply this well-known teaching to the apparatus known from D2 and arrive at an apparatus having the features of claim 1.

The respondent argued that the skilled person would be held back from providing an insertion movement in the apparatus known from D2 since this would require an extra movement involving extra machinery. The Board cannot agree that the skilled person would be so easily discouraged. D2 already discloses pressing means acting axially on the couplings to press them around the opening. It would only need the addition of a return spring to bring a coupling back to its original position after removal of the pressing force if it had been arranged to be inserted into the opening. There is thus no technical prejudice for the skilled person against providing feature (b) in the apparatus known from D2.

2.4 Therefore, the subject-matter of claim 1 of the main request does not involve an inventive step in the sense of Article 56 EPC.

3. Auxiliary requests

3.1 In its communication of 16 February 2007 accompanying the summons to oral proceedings the Board gave its provisional opinion that the subject-matter of claim 1 might not solve the problem of wear which, according to
the respondent, was the problem to be solved. The Board pointed out that the wording of the claim covered a sliding radial motion followed by an axial insertion action.

In response to this opinion and more than one month before the oral proceedings the respondent filed an auxiliary request in which the wording "along an arc" was added to claim 1. During the oral proceedings this amendment was attacked by the appellant for not complying with Article 123(2) EPC. In response to this attack the Board allowed the respondent time to prepare an alternative auxiliary request indicating, however, that the admission of such a request was open to discussion. The respondent then filed the first to third auxiliary requests.

The appellant attacked these requests on the basis that they were too late and the appellant could not judge whether they complied with Article 123(2) EPC in the short time available in an oral proceedings, indicating that there could indeed be problems with added subject-matter. In response to this attack the respondent filed a fourth auxiliary request.

3.2 In the opinion of the Board where an amendment is filed during oral proceedings in the form of a new request it should not be necessary to carry out an extensive examination with respect to the requirements of Article 123(2) EPC and Article 123(3) EPC since this may be an unreasonable burden on the other party and the Board within the time constraints of an oral proceedings. In view of Article 10b(3) of the Rules of Procedure of the Boards of Appeal an adjournment of the oral
proceedings for the purpose of examining these amendments to the respondent's case is excluded.

3.3 The first auxiliary request has the following effect on the wording of claim 1: "can be moved ... from a retracted position to an active position in by which action the coupling is inserted in the corresponding inlet/outlet of said central connector". The amendment changes the meaning of the verb "is" from indicating the inserted position to indicating the inserting action. Such a change of meaning requires careful consideration as to whether the requirements of both Article 123(2) EPC and Article 123(3) EPC are complied with.

In view of the required extensive examination for compliance with these articles the request was not admitted into the proceedings.

3.4 Claim 1 of the second auxiliary request has been amended by combining some of the features of dependent claims 5 and 6 with claim 1, all as granted. Claim 5 as granted was dependent upon claim 4 so that already the non-inclusion of the features of claim 4 in amended claim 1 calls for an examination for compliance with Article 123(2) EPC. Moreover, the amendment takes from claims 5 and 6 only the features which relate to the linkages employed and does not include the features which relate to the pistons which act upon the linkages. This dissection of the features of the dependent claims also requires a careful examination for compliance with Article 123(2) EPC.

This request is therefore not admissible for the same reasons as the first auxiliary request.
3.5 Claim 1 of the third auxiliary request is a combination of claims 1, 4, 5 and 6 as granted. In the patent as granted, claim 4 was only dependent upon claim 1. This also applies to claims 2, 7, 8, 9 and 10. Claims 3 and 11 were only dependent upon claim 2 and were not dependent on claims 4, 5 or 6. The amendment therefore results in the creation of combinations of features which were not present in the claims as granted, namely the combinations of the features of claims 2 and 7 to 11 with the features of claims 4 to 6. It would therefore be necessary to examine whether all of these new combinations of features complied with Article 123(2) EPC, which, amongst other things, would require a careful assessment of the disclosure of the description as originally filed.

This request is therefore not admissible for the same reasons as the first auxiliary request.

3.6 The fourth auxiliary request was filed separately after the filing of the first to third auxiliary requests and claim 1 thereof is a combination of claims 1 to 6 as granted. In the view of the Board a party to oral proceedings does not have a right to file an unlimited number of requests. Moreover, the party should file any request at the earliest point possible in the proceedings, i.e. not in a piecemeal fashion.

The respondent after having been given an opportunity to file a further auxiliary request to address the issue of Article 123(2) and (3) EPC raised in the oral proceedings already extended this to filing three auxiliary requests. It did not file the fourth auxiliary
request at this point, but in fact waited until it had heard the continued objections from the appellant in this respect. The Board considers that the request could without difficulty have been filed along with the first to third auxiliary requests.

Since the request was not filed at the point in the proceedings when it was possible to file it and the appellant had already been given an opportunity to file further auxiliary requests, the Board exercised its discretion in accordance with Article 10b(1) of the Rules of Procedure of the Boards of Appeal not to admit this late filed request.

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:

G. Nachtigall  

H. Meinders