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Datasheet for the decision of 16 June 2021

Case Number: T 2188/18 - 3.2.04

Application Number: 12758651.9

Publication Number: 2747575

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Language of the proceedings: EN

Title of invention:
METHOD AND INSTALLATION FOR PROCESSING SLAUGHTERED POULTRY

Patent Proprietor:
Marel Stork Poultry Processing B.V.

Opponent:
Linco Food Systems A/S

Headword:

Relevant legal provisions:
EPC Art. 100(b), 54(2), 56
RPBA 2020 Art. 13(2)

Keyword:
Sufficiency of disclosure - (yes)
Novelty - (yes)
Inventive step - (yes)
Amendment after summons - taken into account (no)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 2188/18 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 16 June 2021

Appellant: (Opponent)	Linco Food Systems A/S Vestermøllevej 9 8380 Trige (DK)
Representative:	Stork Bamberger Patentanwälte PartmbB Meiendorfer Strasse 89 22145 Hamburg (DE)
Respondent: (Patent Proprietor)	Marel Stork Poultry Processing B.V. Handelstraat 3 5831 AV Boxmeer (NL)
Representative:	EP&C P.O. Box 3241 2280 GE Rijswijk (NL)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 25 June 2018 rejecting the opposition filed against European patent No. 2747575 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	A. de Vries
Members:	G. Martin Gonzalez
	C. Heath
	J. Wright
	W. Van der Eijk

Summary of Facts and Submissions

I. The appeal was filed by the appellant-opponent against the decision of the opposition division to reject the opposition filed against the patent in suit.

II. The opposition division held that the patent as granted was sufficiently disclosed, and the independent claims 1,2,3 and 9,10,11 were new and involved an inventive step having regard inter alia to the following evidence:

D1 US 4483047
D6 WO 2010/142413A

Hearing of the following witnesses on 7 March 2018:

I Mr. Poul Kjeldsen,
II Mr. Bo Thøstesen,
III Mr Palle Schmidt Laursen,
IV Mr Gert Laursen, and
V Mr. Lars Kyd Jacobsen,

and related evidence:

V1 Prospekt "LINCOflex Grading System"
V2 Prospekt "weighing systems"
V3 Prospekt "LINCOTRONIC 3X WEIGHING COMPUTER"
V4 Handbuch "Grading System Lincotronic 3X" 1 January 1990
V5 Handbuch "LINCOflex 1000 Grading system" 02.05.1996
V6 Handbuch "LINCOflex 2000 Grading system" Version 3.6x 01.04.2008
V7 Layoutplan der Anlage Beresfield, Australien 1994

V8 Packliste fur die Anlage Beresfield 1994
V9 Rechnung fur die Anlage Beresfield 1994
V10 Layoutplan der Anlage El Paico, Chile 2008
V11 Lieferbestatigung "LINCOflex-System" fur die Anlage El Paico 2006
V12 Lieferbestatigung "Weighing & Transfersystem" und "LINCOflexSoftware" fur die Anlage El Paico 2008
V13 Liefereschein Software" LINCOflex 2000" Version 3.63 fur die Anlage El Paico 2008
V14 Back-up-Screen-shot van 2008-09-02 zur Nutzung der Software "LINCOflex 2000" in der Version 3.63 fur die Anlage El Paico 2008 mit Cflow-Programmierung.

III. The appellant-opponent filed the following evidence during appeal proceedings, with letter of 17 May 2021:

D7 WO 2005/095904 A1

IV. In preparation for oral proceedings the board issued a communication setting out its provisional opinion on the relevant issues.

Oral proceedings were held before the board by videoconference on 16 June 2021.

V. The appellant-opponent requests that the decision under appeal be set aside and that the patent be revoked.

The respondent-proprietor requests that the appeal be dismissed (Main Request), or else that the case be remitted to the department of first instance for a further discussion of one of Auxiliary Requests 1-4, all filed with the reply to the grounds of appeal, and that document D7 not be admitted into the proceedings.

VI. The independent claims of the main request (patent as granted) read as follows:

"**1.** Method for processing slaughtered poultry, wherein oven-ready carcasses of slaughtered poultry are conveyed by a feed conveyor (2), said feed conveyor having an endless track and carriers (2a) that are moved along said track, the feed conveyor carrier being adapted to support one carcass suspended from its legs, wherein each individual carcass is subjected at least one of:

- a determination of the individual carcass weight by a weighing device (4),
- a determination of the individual carcass size by an imaging device,

wherein for dividing the carcasses into parts use is made of a first cut-up line (10) and a second cut-up line (20),
wherein each cut-up line has an associated cut-up line conveyor (11, 21), said cut-up line conveyor having an endless track and carriers (11a, 21a) that are moved along said track, each cut-up line conveyor carrier being adapted to support one carcass suspended from its legs,
wherein each cut-up line comprises one or more cutting devices (12, 22) arranged along the track, which one or more cutting devices divide a carcass supported by a cut-up line conveyor carrier into parts,
wherein a first transfer device (5) is arranged between the feed conveyor (2) and the first cut-up line conveyor (11) and transfers carcasses from said feed conveyor to said first cut-up line conveyor,
wherein a second transfer device (15) is arranged between the feed conveyor (2) and the second cutup line conveyor (21) and transfers carcasses from said feed conveyor to said second cut-up line conveyor,

wherein use is made of a computerized production control system (80) which - based upon the determination of each individual carcass made by the weighing device (4) and/or by the imaging device - grades each of the carcasses conveyed by the feed conveyor into a category:

- a small carcass size category,
- a large carcass size category,

wherein the production control system controls the first transfer device such that carcasses in the small carcass size category are transferred - to the greatest extent possible - from the feed conveyor to the first cut-up line conveyor,
wherein the production control system controls the second transfer device such that carcasses in the large carcass size category are transferred - to the greatest extent possible - from the feed conveyor to the second cut-up line conveyor,
characterized in that
the computerized production control system (80) grades each of the carcasses that are conveyed by the feed conveyor and are to be processed on one of the two cut-up lines into one of three categories:

- said small carcass size category,
- said large carcass size category, and
- an intermediate carcass size category,

and in that the computerized production control system determines in real-time - for the combination of the first transfer device (5) and the first cut-up line conveyor (11) and for the combination of the second transfer device (15) and the second cut-up line conveyor (21) - the capacity of each of said combinations to receive carcasses of the respective small carcass size and large carcass size category from the feed conveyor,

and in that the production control system determines in real-time - for the combination of the first transfer device (5) and the first cut-up line conveyor (11) and for the combination of the second transfer device (15) and the second cut-up line conveyor (21) - the respective remaining capacity to receive carcasses from the feed conveyor in the situation that the carcasses in the small carcass size and large carcass size categories have - to the greatest extent possible - been allocated to the respective combination,
and in that the production control system controls the first and second transfer devices (5,15) such that the carcasses in the intermediate carcass size category are distributed over said combinations on the basis of the determined remaining capacity of each of said combinations."

"**2** Method for processing slaughtered poultry, wherein carcass breast parts of slaughtered poultry are conveyed by a feed conveyor, said feed conveyor (30) conveying a stream of individual carcass breast parts (31) in sequential order, wherein each individual carcass breast part is subjected at least one of:

- a determination of the individual carcass breast part weight by a weighing device (33),
- a determination of the individual carcass breast part size by an imaging device,

wherein for filleting the carcass breast parts use is made of N filleting lines (40,50), wherein N is an integer number of 2 or greater, at least including a first filleting line and a second filleting line, wherein each filleting line has an associated filleting line conveyor (41,51), said filleting line conveyor having an endless track and carriers that are moved along said track, each filleting line conveyor carrier being adapted to support one carcass breast part,

wherein each filleting line comprises one or more filleting process devices (42,52) arranged along the track, which one or more filleting process devices perform a filleting process operation on the carcass breast part supported by a filleting line conveyor carrier,
wherein the installation comprises N transfer devices (35,45), such that a transfer device is arranged between the feed conveyor and each filleting line conveyor and transfers carcass breast parts from said feed conveyor to said filleting line conveyor,
wherein use is made of a computerized production control system which - based upon the determination of each individual carcass breast part made by the weighing device and/or by the imaging device - grades each of the carcass breast parts conveyed by the feed conveyor into one carcass breast part size category of N categories, at least including a first and a second carcass breast part size category, each category containing differently size carcass breast parts,
wherein the production control system controls each transfer device such that carcass breast parts in the each carcass breast part size category are transferred

- to the greatest extent possible - from the feed conveyor to the respective filleting line conveyor,

characterized in that
the computerized production control system makes use of an intermediate carcass breast part size category between each pair of adjacent carcass breast part categories, and
wherein the computerized production control system grades each of the carcass breast parts that are conveyed by the feed conveyor and are to be processed by one of two filleting lines that each correspond to one of said pair of adjacent breast part categories into one of three categories:

- said first carcass breast part size category,
- said second carcass breast part size category, and
- an intermediate carcass breast part size category,

and in that the computerized production control system determines in real-time - for the combination of the first filleting line conveyor and the respective first transfer device and for the combination of the second filleting line conveyor and the respective second transfer device - the capacity of each of said combinations to receive carcass breast parts of the respective first carcass breast part size and second carcass breast part size category from the feed conveyor,

and in that the production control system determines in real-time - for the combination of the first transfer device and the first filleting line conveyor and for the combination of the second transfer device and the second filleting line conveyor - the respective remaining capacity to receive carcass breast parts from the feed conveyor in the situation that the carcass breast parts in the first carcass breast part size and second carcass breast part size categories have - to the greatest extent possible - been allocated to the respective combination,

and in that the production control system controls the first and second transfer devices such that the carcass breast parts in the intermediate carcass breast part size category are distributed over said combinations on the basis of the determined remaining capacity of each of said combinations."

"**3.** Method for processing slaughtered poultry, wherein carcasses breast parts of slaughtered poultry are conveyed by a feed conveyor, said feed conveyor having

an endless track and carriers that are moved along said track, each feed conveyor carrier being adapted to support one carcass breast part, e.g. the carcass breast part being partly cut loose from an oven-ready carcass that is suspended by its legs from the carrier, wherein each individual carcass breast part is subjected at least one of:

- a determination of the individual carcass breast part weight by a weighing device,
- a determination of the individual carcass breast part size by an imaging device,

wherein for filleting the carcass breast parts use is made of a first filleting line and a second filleting line,
wherein each filleting line has an associated filleting line conveyor, said filleting line conveyor having an endless track and carriers that are moved along said track, each filleting line conveyor carrier being adapted to support one carcass breast part,
wherein each filleting line comprises one or more filleting process devices arranged along the track, which one or more filleting process devices perform a filleting process operation on the carcass breast part supported by a filleting line conveyor carrier,
wherein the filleting line conveyor of each of said first and second filleting lines is adapted for direct transfer of a carcass breast part from a carrier of the feed conveyor to a carrier of the filleting line, the carriers of the filleting line conveyor e.g. each being selectively movable on command into a receiving position and a non-receiving position with respect to the feed conveyor, and being moved into the receiving position if a carcass breast part is to be transferred from a carrier of the feed conveyor to a carrier of the filleting line conveyor,

wherein use is made of a computerized production control system which - based upon the determination of each individual carcass breast part made by the weighing device and/or by the imaging device - grades each of the carcass breast parts conveyed by the feed conveyor into one carcass breast part size category of N categories, at least including a first and a second carcass breast part size category, each category containing differently size carcass breast parts, wherein the production control system controls each transfer such that carcass breast parts in the each carcass breast part size category are transferred - to the greatest extent possible - from the feed conveyor to the respective filleting line conveyor,
characterized in that
the computerized production control system makes use of an intermediate carcass breast part size category between each pair of adjacent carcass breast part categories,
and wherein the computerized production control system grades each of the carcass breast parts that are conveyed by the feed conveyor and are to be processed by one of two filleting lines that each correspond to one of said pair of adjacent breast part categories into one of three categories:

- said first carcass breast part size category,
- said second carcass breast part size category, and
- an intermediate carcass breast part size category,

and in that the computerized production control system determines in real-time - for the first filleting line conveyor and for the second filleting line conveyor - the capacity of each of said combinations to receive carcass breast parts of the respective first carcass breast part size and second carcass breast part size

category from the feed conveyor, and in that the production control system determines in real-time - for the first filleting line conveyor and for the second filleting line conveyor - the respective remaining capacity to receive carcass breast parts from the feed conveyor in the situation that the carcass breast parts in the first carcass breast part size and second carcass breast part size categories have - to the greatest extent possible - been allocated to the respective combination,
and in that the production control system controls the transfers such that the carcass breast parts in the intermediate carcass breast part size category are distributed over said first and second filleting lines on the basis of the determined remaining capacity of each of said filleting lines."

"**9.** Installation for processing slaughtered poultry, wherein the installation has:

- a feed conveyor (2) to convey oven-ready carcasses of slaughtered poultry, said feed conveyor having an endless track and carriers that are moved along said track, the feed conveyor carrier being adapted to support one carcass suspended from its legs,
- a station including at least one of a weighing device and an imaging device, wherein each individual carcass is subjected at least one of:
- a determination of the individual carcass weight by a weighing device (4), - a determination of the individual carcass size by an imaging device,
- a first cut-up line (10) and a second cut-up line (20), each for dividing an oven-ready carcass into parts,

wherein each cut-up line has an associated cut-up line conveyor (11,21), said cut-up line conveyor

having an endless track and carriers that are moved along said track, each cut-up line conveyor carrier being adapted to support one carcass suspended from its legs,

wherein each cut-up line comprises one or more cutting devices (12,22) arranged along the track, which one or more cutting devices divide a carcass supported by a cut-up line conveyor carrier into parts,

- a first transfer device (5) arranged between the feed conveyor and the first cut-up line conveyor, which transfer device transfers carcasses from said feed conveyor to said first cut-up line conveyor,
- a second transfer device (15) arranged between the feed conveyor and the second cut-up line conveyor, which transfer device transfers carcasses from said feed conveyor to said second cut-up line conveyor,
- a computerized production control system which is programmed - based upon the determination of each individual carcass made by the weighing device and/or by the imaging device - to grade each of the carcasses conveyed by the feed conveyor into a category:
- a small carcass size category,
- a large carcass size category,

wherein the production control system is programmed to control the first transfer device such that carcasses in the small carcass size category are transferred - to the greatest extent possible - from the feed conveyor to the first cut-up line conveyor, wherein the production control system is programmed to control the second transfer device such that carcasses in the large carcass size category are transferred - to the greatest extent possible - from the feed conveyor to the second cut-up line conveyor,

characterized in that

the computerized production control system is programmed to grade each of the carcasses that are conveyed by the feed conveyor and are to be processed on one of the two cut-up lines into one of three categories:

- said small carcass size category,
- said large carcass size category, and
- an intermediate carcass size category,

and in that the computerized production control system is programmed to determine in real-time - for the combination of the first transfer device and the first cut-up line conveyor and for the combination of the second transfer device and the second cut-up line conveyor - the capacity of each of said combinations to receive carcasses of the respective small carcass size and large carcass size category from the feed conveyor, and in that the production control system is programmed to determine in real-time - for the combination of the first transfer device and the first cut-up line conveyor and for the combination of the second transfer device and the second cut-up line conveyor - the respective remaining capacity to receive carcasses from the feed conveyor in the situation that the carcasses in the small carcass size and large carcass size categories have - to the greatest extent possible - been allocated to the respective combination, and in that the production control system is programmed to control the first and second transfer devices such that the carcasses in the intermediate carcass size category are distributed over said combinations on the basis of the determined remaining capacity of each of said combinations."

"10. An installation for processing slaughtered poultry, wherein the installation has:

- a feed conveyor (30) for carcass breast parts of slaughtered poultry, said feed conveyor being adapted to convey a stream of individual carcass breast parts (31) in sequential order,
- a station comprising at least one of a weighing device and an imaging device, wherein each individual carcass breast part is subjected at least one of:
- a determination of the individual carcass breast part weight by the weighing device (33),
- a determination of the individual carcass breast part size by the imaging device,
- at least a first filleting line (40) and a second filleting line (50) adapted for filleting the carcass breast parts,
wherein each filleting line has an associated filleting line conveyor (41,51), said filleting line conveyor having an endless track and carriers that are moved along said track, each filleting line conveyor carrier being adapted to support one carcass breast part, wherein each filleting line comprises one or more filleting process devices (42,52) arranged along the track, which one or more filleting process devices perform a filleting process operation on the carcass breast part supported by a filleting line conveyor carrier,
- a first transfer device (35) arranged between the feed conveyor and the first filleting line conveyor, which transfer device transfers carcass breast parts from said feed conveyor to said first filleting line conveyor,
- a second transfer device (45) arranged between the feed conveyor and the second filleting line conveyor, which transfer device transfers carcasses from said feed conveyor to said second filleting line conveyor,
- a computerized production control system which is programmed to perform the method of claim 2."

"**11.** An installation for processing slaughtered poultry, wherein the installation has:
- a feed conveyor (130) adapted to convey carcasses breast parts of slaughtered poultry, said feed conveyor having an endless track and carriers (131) that are moved along said track, each feed conveyor carrier being adapted to support one carcass breast part, e.g. the carcass breast part being partly cut loose from an oven-ready carcass that is suspended by its legs from the carrier,
- a station (133) comprising at least one of a weighing device and an imaging device, wherein each individual carcass breast part is subjected at least one of:
- a determination of the individual carcass breast part weight by a weighing device,
- a determination of the individual carcass breast part size by an imaging device,
- at least a first filleting line (140) and a second filleting line (150) for filleting the carcass breast parts,
wherein each filleting line has an associated filleting line conveyor (141,151), said filleting line conveyor having an endless track and carriers that are moved along said track, each filleting line conveyor carrier being adapted to support one carcass breast part,
wherein each filleting line comprises one or more filleting process devices (142,152) arranged along the track, which one or more filleting process devices perform a filleting process operation on the carcass breast part supported by a filleting line conveyor carrier,
wherein the filleting line conveyor of each of said first and second filleting lines is adapted for direct transfer of a carcass breast part from a carrier of the feed conveyor to a carrier of the filleting line, the

carriers of the filleting line conveyor e.g. each being selectively movable on command into a receiving position and a non-receiving position with respect to the feed conveyor, and being moved into the receiving position if a carcass breast part is to be transferred from a carrier of the feed conveyor to a carrier of the filleting line conveyor,
- a computerized production control system (100) which is programmed to perform the method of claim 3."

VII. The appellant-opponent argues as follows:

The invention according to granted claim 1 is not sufficiently disclosed. For the assessment of novelty and inventive step, the features related to the conceptual division of the carcasses in three size categories and how they are conceptually distributed into two groups inside the control computer should not be taken into account since they are not technical features. Even taking those features into account, the prior uses *Beresfield* and *El Paico* anticipate the subject-matter of granted claim 1 and are thus prejudicial for novelty of the granted claims. The subject-matter of granted claim 1 also lacks an inventive step in the light of the prior uses, D1, D6 and common general knowledge.

VIII. The respondent-proprietor replied as follows:

The invention is sufficiently disclosed. Moreover all features of the independent claims contribute to the technical character of the invention and should be taken into account for novelty and inventive step. None of the prior uses anticipate the subject-matter of any of the granted independent claims with all its features. The granted subject-matter is thus new. It

also involves an inventive step in the light of the cited prior art.

Reasons for the Decision

1. The appeal is admissible.

2. Background

The invention (method claim 1 and apparatus claim 9) is concerned with processing slaughtered poultry, where carcasses are divided into parts on two cut-up lines, each cut-up line optimized for a specific carcass size (i.e. small, large), see specification paragraphs [0001]-[0003] and [0015]. The invention aims at an optimized distribution of the carcasses over the two cut-up lines in terms of a proper carcass size distribution over the two lines and optimized use of the individual cut-up lines' capacity. To this end, a computerized control system grades the carcasses in the feed conveyor into three categories: small size, large size and intermediate size. The system commands each transfer device (of each cut-up line) to transfer respectively small size carcasses and large sizes carcasses to the greatest extent possible to the respective cut-up line, while the intermediate carcass size category is distributed over the two lines on the basis of the remaining capacity of each of said lines, see paragraphs [0014]-[0016].

The other independent claims 2, 3, 10 and 11 are directed to methods and apparatuses that divide individual breast parts or carcass breast parts into small and large filleting lines. They define equivalent steps to those defined in claim 1 for dividing carcasses into two small and large filleting lines.

3. Main request - Sufficiency of disclosure

3.1 The appellant-opponent submits that because the terms "realtime" and "remaining capacity" appear in the characterizing portion of the independent claims, they are meant to differentiate the claimed subject-matter from the prior art. For this reason they must have a meaning deviating from their standard definitions. Inasmuch as there is no indication or definition in the patent specification of that special meaning, the skilled person would not be able to carry out the claimed invention.

The board is not convinced by the argument. The board fails to see why a feature should have a different meaning merely because it is present in the characterizing part of the claim. According to established jurisprudence, terms are normally given their usual meaning, unless the patent gives them a special meaning, see e.g. CLBA, 9th edition 2019, II.A. 6.3.2. In this case it appears from the patent specification that these terms are used in their usual sense. The appellant has not cited any examples in the description (or figures) which might suggest a different meaning. Thus, *in real-time* is understood as meaning (within practical limits) *while something is taking place*, while *capacity,* see also specification paragraph 0012, is understood in the context of processing as referring to the maximum amount a line can process in a given amount of time. Thus, in the claims *determining in real-time the remaining capacity of a combination of transfer device and (corresponding) cut-up line* means determining the maximum number or amount of carcasses etc. that can still be processed in

a given amount of time by the combination at that point in time.

3.2 The appellant-opponent also submits that the description fails to show a particular example of the programming to carry out the method steps of the characterising portion of the independent claims, and alleges that this renders them insufficiently disclosed. However, the contested claims' characterising portions recite method steps in the form of relatively straightforward logical rules, which are clear per se. They define rules for the selection of carcasses or breast parts depending on their category and also on the remaining capacity of the given cut-up or filleting lines. The skilled person, a production engineer involved in designing production lines in the meat processing industry, will have good knowledge of automation technology including programming and software design, or will delegate the job to someone with the relevant knowledge, such as a programmer, software designer or systems engineer. The board has no doubt that they will be able to realize the simple rules as defined in the claims and detailed in the description and figures as program steps in a computerized production control system without any effort beyond their ordinary skills.

3.3 The board concludes that the subject-matter of the granted independent claims is sufficiently disclosed, Article 100(b) EPC.

4. Technical contribution of non-technical features

Contrary to the submissions of the appellant-opponent, the board sees no reason to disregard any of the claimed features for the assessment of novelty and

inventive step. As noted in the board's written communication,

"According to Boards of Appeal case law, when assessing novelty and inventive step, all those features which contribute to the technical character of the invention are taken into account. These features also include those, which in isolation may be non-technical, but in the context of the invention contribute to producing a technical effect serving a technical purpose, see Case Law of the Boards of Appeal, 9th Edition 2019 (CLBA) I.C.5.2.8 and I.D.9.1.2. In the present case, the steps of grading by weight and size and control of transfer devices according to grading and line capacities in a particular manner are carried out by a computerized production control system, which must be programmed and configured accordingly. The various steps carried out under the control of the system moreover are not only clearly of physical (and not conceptual or intellectual) nature but also clearly contribute to the technical effect of achieving an optimized use of the two cut-up lines, see specification paragraphs [0014]-[0016], which is considered by the Board as a technical effect serving a technical purpose."

The parties refrained from further comment on this issue and the board sees no reason to deviate from this opinion.

5. Main request - Novelty

5.1 Without prejudice to the issue of proof, the board finds that the two prior uses *El Paico* and *Beresfield* are not prejudicial to novelty of granted claim 1, since neither discloses the method according to the granted claim with all its features.

5.2 Method claim 1 is a method for distributing carcasses into two cut-up line combinations. Each combination is made of a transfer device and a cut-up line. One combination is for small carcasses and the other one is for large carcasses. Both lines can process carcasses of intermediate category. The incoming carcasses are classified in three categories, small, intermediate and large. Small carcasses are allocated to the small cut-up line combination to the greatest extent possible, as are large carcasses to the large cut-up line combination. Granted claim 1 further calls for determining in real time a remaining capacity of each of the two cut-up lines after maximum allocation of small and large carcasses. Finally, according to the last feature of the claim, "the carcasses in the intermediate carcass size category are distributed over said combinations on the basis of the determined remaining capacity of each of said combinations".

The capacity of a combination (of a transfer and its cut up line) in the sense of the claim is understood, see above, to be the *maximum or total* capacity, since it accommodates the maximum possible allocation of the respective small or large category carcasses and, on top of it, intermediate category carcasses on the basis of remaining capacity.

5.3 Neither of the prior use systems distributes the intermediate category carcasses over the two lines on the basis of the *remaining* capacity of each of the combinations, as is required by the claim.

5.4 Both prior uses *El Paico* and *Beresfield* have essentially the same configuration, as is clear from the testimony of the witnesses. They use a control

function called CFLOW for each cut-up line. One line is configured for small and intermediate carcasses and the other for large and intermediate size carcasses. The control function CFLOW is one of several of the control system software LINCOFLEX, which is a very powerful and flexible control system with many different functions, see LINCOFLEX manual, evidence V5. CFLOW is designed specifically for controlling the transfer from a feed line to a drop-off station, but it can also be used for the transfer to a cut-up line as it is indeed used in both prior uses.

5.5 The function CFLOW is described on page 32 of manual V5. CFLOW function is line oriented in that it is meant to optimize transfer in a given line. It can thus serve and monitor only one drop-off station. As explained in the manual V5, page 32, 9th. paragraph CFLOW "...ensures, that the maximum number of first priority items are dropped, and that second [or third priority] items will only be dropped if first priority items have been lacking". This is achieved as follows: The items to be transferred or dropped from the feed line are classified according to priorities defined by the user, for instance according to weight ranges. There are at least a first and a second priority, which for instance correspond to carcasses within a low weight range and a middle weight range respectively. Additionally, a maximum and a minimum desired flow of number of items per minute must also be programmed. First priority items are always transferred up to the set maximum flow rate. Items of the second priority are transferred only if the set minimum flow rate can not be achieved with first priority items. There is therefore a buffer capacity between the minimum and the maximum flow rate that is only used for first priority items (if there are more than the minimum flow rate) but which is not

used for the second priority items. This ensures, as the manual V5 describes at page 32, penultimate paragraph, "that the maximum number of first priority items are dropped and that second or third priority items will only be dropped if first priority items have been lacking during a relatively long period of time." Second priority items are only transferred when first priority items are arriving at a rate below minimum flow rate. In CFLOW the term *flow rate*, similarly to *capacity* in the patent, refers to amounts or numbers that are (desired to be) processed in a given amount of time.

It is worth mentioning that the resulting flow rate of items transferred, say, per minute, to a given cut-up line under control of CFLOW, will lie somewhere between the minimum and the maximum programmed flow rates. A higher proportion of incoming first priority items on the feed line will make more use of the buffer capacity and result in an actual flow rate between minimum and maximum flow rate with only first priority items. A lower proportion of first priority items on the feed line will result in less use - or no use - of the buffer capacity, with a mix of first and second priority items to make up shortfalls below the minimum flow rate. This line dropping strategy can be summarized as: fill up with *only* first priority items if they are coming in fast enough; if not then make up the shortfall up to a minimum rate with second priority items. Such a scheme guarantees the highest possible flow rate of only high priority items when there are enough of them; when there is not, a balance is struck to maintain an acceptable minimum flow which however includes lower priority (less preferred) items. Thus CFLOW guarantees a minimum but mixed constant flow when first priority items are low, and when not, produces a

flow of exclusively first priority items at a rate between minimum and maximum.

5.6 Turning to the particular programming of this function in *Beresfield* and *El Paico*, according to the testimony the incoming carcasses are divided into three weight categories, small, large and intermediate, before distributing them over the two cut-up lines. The first cut-up line (e.g. for small carcasses) is served by a first CFLOW function. This is programmed with its first priority being the small category and its second priority being the intermediate category. The second cut-up line is served by a second CFLOW function with its first priority being the large carcasses and the second priority being the intermediate ones. Thus both lines are programmed to share the intermediate size category as their second priority, see M. Kjeldsen declaration in bridging paragraph of pages 9/79-10/79 of the minutes of the taking of evidence and M. P. Laursen declaration fourth paragraph on page 37/79. The board agrees with the appellant that this corresponds to the three categories required by the claim.

5.7 However, as explained above, the second priority items (intermediate category) in the CFLOW function are distributed on the basis of the programmed *minimum* flow rate, that is when first priority items are dropped at a rate less than that minimum. This is *below* the capacity of the cut-up line. The CFLOW function, as detailed above, does have further buffer capacity for first priority items above the minimum programmed flow rate, but this is exclusively used for allocating *first priority items*. This is different from using remaining capacity of each line (the capacity remaining after all first priority - small respectively large - items have been used up) for *second priority* items, or (in the

claim language) distributing carcasses in the intermediate size category on the basis of remaining capacity of each of the cut-up lines. The subject-matter of claim 1 is therefore new over the prior uses.

5.8 The appellant appears to infer from the testimony, see e.g. page 16/79, bottom, page 37/79, 2nd witness answer, and page 75/79 bottom , that the CFLOW function in *El Paico* or *Beresfield* could only have been programmed for each line with the same value for the minimum and maximum flow rate and thus without any buffer capacity, so that the last claimed feature would be fulfilled. The board is unconvinced that this is so. Such a setting was not expressly mentioned by any of the witnesses and is also not suggested in any of the printed documentation, some of which is quite detailed such as manual V5, as acknowledged by the appellant. It also seems contrary to the rationale of the CFLOW scheme, a fairly sophisticated scheme, where the buffer capacity between maximum and minimum guarantees exclusively first priority items when their numbers are high. Without any buffers CFLOW can no longer fully respond to momentary fluctuations of first priority flow rate and some will not be dropped, while both lines will most likely always be adulterated with second priority items.

Nor does it therefore follow inevitably from the witnesses' observation that the main feed flows were being split into two equal constant flows (pages 16/79 , 37-38/79 and 75/79 of the witness statement). Indeed, if the minimum and maximum CFLOW flow rates in both lines were set to half the feed line value (as seems to be implied) this might ensure that each cut-up line is fully loaded to its maximum capacity of number of items per minute as long as first and second

category items are available. However, this would also imply that there is no longer a buffer capacity to accommodate temporary high incoming flow rates of first priority items which will not be dropped in either line. It therefore does not appear possible to achieve a main feed flow being split into two equal constant flows with these settings. Thus, producing an equal constant flow half the feed line flow in both lines cannot be realized by simply setting the minimum to the same maximum value in either line. In the board's understanding this can only be the result of a judicious choice of priority threshold values and differing maximum and minimum values on the basis of expected flow rates, weight and distribution.

The board can thus not conclude without reasonable doubt that the prior uses were so programmed. It is consequently unable to conclude that the feature of distributing the intermediate carcass size category on the basis of remaining capacity is directly and unambiguously disclosed in either prior art. The subject-matter of claim 1 is therefore new over the prior uses also seen from this perspective.

5.9 The other independent claims 2,3,9,10,11 are directed to an apparatus for dividing a flow of carcasses into filleting lines (claim 9) or to methods and apparatuses that divide individual breast parts or carcass breast parts into filleting lines (claims 2,3,10,11). They define equivalent steps to those discussed above for method claim 1. All include the feature of distributing intermediate category items over the filleting lines on the basis of the determined remaining capacity of each line, which the board finds not to be directly and unambiguously disclosed by either prior use.

5.10 The board concludes that the granted independent claims are new, Article 54(2) EPC.

6. Main request - Inventive step

6.1 The appellant-opponent contests the findings of the opposition division that the granted subject-matter involves an inventive step over different combinations of the prior uses, D1, D6 and common general knowledge.

6.2 Considering a system with each line controlled by CFLOW as starting point, as follows from the novelty assessment above, neither prior use discloses that the intermediate size carcass category is distributed over the two cut-up lines on the basis of each remaining capacity.

As will be apparent from the discussion above, adjusting CFLOW with the appropriate parameters to obtain a desired average flow is a laborious task. As explained, in each cut-up line the flow of transferred items per minute will lie, in some time periods, between the minimum and the maximum programmed flow rates and in other periods at the minimum flow rate. Thus, adjusting CFLOW to yield a resulting flow rate that makes use of the respective capacities of the cut-up lines, must be carried out by programming appropriate minimum and maximum flow rates of items per minute, and a judicious choice of the small, intermediate and large size categories, to adapt them to the weight distribution of the incoming flock. Possibly this must be done in iterative manner, continuously adjusting the control parameters to observed, past results.

6.3 While CFLOW is predicated on a buffer between maximum and minimum flow rates that is dedicated to first priority only, in contrast, the claimed distribution method automatically uses the full capacity available in both lines to also accommodate intermediate category items. This can be seen as an optimization of the use of the two cut-up lines, see specification paragraphs [0014]-[0016], and solves the corresponding objective technical problem of how to optimize the use of the cut-up line capacities.

6.4 In view of the fact that CFLOW is a per line control scheme predicated on the use of a buffer with judiciously chosen parameters, the board is not convinced that the skilled person would simply set the minimum to the maximum value as a matter of obviousness. As explained above, with no buffer, first priority items may not be accommodated fully in both lines.

Moreover, even if they did consider using the same value for minimum and maximum flow rate, this would not result in the claimed subject-matter. As CFLOW operates per line level, there is no coordination between the CFLOW controls of the two lines and second priority (intermediate category) items will be used to fill up the first line to the detriment of the first priority items in that line and of filling up of the second line. This does not correspond to a control that distributes intermediate category items over said combinations on the basis of the determined remaining capacity of each of said combinations.

6.5 The skilled person, looking at the teachings of other prior art documents for optimizing the known system, would find document Dl that is concerned with a method for sorting incoming products according to weight. This is an alternative solution to that of the contested claims. D1 proposes a floating limit method, where items are split into two groups - large and small - delivered to two processing lines, with the split-weight value fluctuating so as to obtain equal flow in both lines. The split-weight in Dl is progressively re-adjusted on the basis of the average weight of the last one hundred weighted birds for a correct functioning of the system, see Dl, column 2, lines 29-46. There is therefore in Dl no suggestion of an intermediate size category. Even considering, as the appellant-opponent suggests, the intermediate category as that between the maximum and minimum split-weight during the day, the method of D1 would also neither teach nor suggest distributing that intermediate size carcass category over the two processing lines on the basis of each real time remaining capacity, as claimed. Indeed, all incoming carcasses are distributed according to the instant split-weight, whether the corresponding processing line has remaining capacity or not.

6.6 As regards D6, this document is directed to fish processing, mainly on the basis of a fish condition factor K derived from the fish weight and length, see page 4, lines 12-17, where weight is only used as a possible additional parameter, see page 5, lines 6-10. While this document teaches the use of K factor overlapping ranges for distributing to two processing lines, and also changing ranges dynamically in order to achieve that all processing stations are working continuously, see page 14, lines 13-25, there is no

suggestion that the non-overlapping part of the ranges should be first allocated to each station (i.e. the small or large category transferred to the greatest extent possible) and the intermediate or overlapping range then be distributed over the two stations on the basis of the remaining capacity.

6.7 As regards obvious automation of a known manual activity, there is no evidence of a known manual distribution of carcasses to two automated cut-up lines having a given capacity in the manner claimed.

6.8 In sum there is no suggestion in the prior art documents or teaching from common general knowledge to allocate a small and a large category to the greatest extent possible to their respective lines and to distribute an intermediate category over the two lines on the basis of real-time remaining capacity for installations and methods of the type claimed, which is furthermore not obvious per-se. Therefore on the basis of any combination of the cited documents, including common general knowledge, the skilled person would not arrive at the claimed subject-matter as a matter of obviousness.

6.9 The board thus concludes that the granted independent claims 1-3 and 9-11 involve an inventive step in the sense of Article 56 EPC.

7. Document D7 admissibility

The appellant-opponent filed with letter of 17 May 2021 a new document D7. This late filed evidence represents an amendment to the party's case made after notification of the summons to oral proceedings dated 26 June 2020. Its admission is thus at the discretion of the board pursuant to Article 13(2) RPBA 2020. According to this rule, the Board should in principle not take such an amendment into account unless there are exceptional circumstances which have been justified with cogent reasons.

Such exceptional circumstances are not apparent to the board. That the appellant-opponent came across the document in the course of a parallel proceedings is not a circumstance arising from the present case. The appellant-opponent also submits that D7 is filed in response to arguments of the respondent-proprietor as regards what belongs to common general knowledge, but these were raised with the respondent's reply of 5 March 2019, more than one year before the summons to oral proceedings. Nor can the fact that the board has referred to them in its preparatory communication come as a great surprise. Therefore, the appellant-opponent has had ample time to respond.

For the above reasons, the board decided not to admit D7 into the proceedings, Article 13(2) RPBA 2020.

8. As the appellant's arguments against the findings in the opposition division's decision fail to convince, the board upholds the opposition division's decision.

Order

For these reasons it is decided that:

The appeal is dismissed

The Registrar: The Chairman:

G. Magouliotis A. de Vries

Decision electronically authenticated