

Title (en)

ASEPTICALLY WORKING PACKAGING MACHINES AND METHOD FOR PRE-STERILIZING THEM

Title (de)

ASEPTISCH ARBEITENDE VERPACKUNGSMASCHINEN UND VERFAHREN ZU DEREN VORSTERILISATION

Title (fr)

MACHINES D'EMBALLAGE A FONCTIONNEMENT ASEPTIQUE ET PROCEDE DE LEUR PRESTERILISATION

Publication

**EP 1152946 B1 20040630 (DE)**

Application

**EP 00993397 A 20001211**

Priority

- DE 0004415 W 20001211
- DE 19960155 A 19991214

Abstract (en)

[origin: WO0144053A1] The invention relates to aseptically working packaging machines and to a method for pre-sterilizing them. The aim of the invention is to simultaneously introduce under pressure the steam and the sterilizing agent at a single site into a sterile air feed channel (2) that leads to the sterile chamber (1) of the packaging machine. To this end, a mixing nozzle (3) is located in the air feed channel directly downstream of a sterile air filter (6). For the purpose of pre-sterilization, the treating elements disposed in the sterile chamber that are possibly still hot are brought to a temperature of less than 120 DEG C before the actual pre-sterilization begins. The steam and the sterilizing agent are mixed by means of a mixing nozzle (3) to which both components are fed. The steam is fed to the nozzle via a pressure-reducing valve (19) and an adjoining device (10) that regulates the steam quantity. The sterilizing agent is fed to the nozzle (3) from a sterilizing agent reservoir (12) that is maintained at a constant pressure. During the initial phase of the pre-sterilization, the supply of sterile air to the sterile air filter is shortly interrupted in order to generate a partial reflux of the atomized steam/sterilizing agent mixture upstream towards the sterile air filter (6).

IPC 1-7

**B65B 55/02**; **B65B 55/10**

IPC 8 full level

**B65B 55/02** (2006.01); **B65B 55/10** (2006.01)

CPC (source: EP US)

**B65B 55/025** (2013.01 - EP US); **B65B 55/103** (2013.01 - EP US)

Designated contracting state (EPC)

DE ES FR

DOCDB simple family (publication)

**WO 0144053 A1 20010621**; DE 19960155 A1 20010621; DE 50006955 D1 20040805; EP 1152946 A1 20011114; EP 1152946 B1 20040630; ES 2218282 T3 20041116; US 2002134051 A1 20020926; US 6622457 B2 20030923

DOCDB simple family (application)

**DE 0004415 W 20001211**; DE 19960155 A 19991214; DE 50006955 T 20001211; EP 00993397 A 20001211; ES 00993397 T 20001211; US 91341501 A 20010813