

Title (en)

FILLING ASSEMBLY AND METHOD FOR FILLING CYLINDRICAL CONTAINERS

Title (de)

FÜLLANORDNUNG UND VERFAHREN ZUM BEFÜLLEN VON ZYLINDRISCHEN BEHÄLTERN

Title (fr)

SYSTÈME DE REMPLISSAGE ET PROCÉDÉ DE REMPLISSAGE DE RÉCIPIENTS CYLINDRIQUES

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Application

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Priority

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Abstract (en)

[origin: WO2018127268A1] The invention relates to a method for filling a container and to a filling arrangement consisting of a filling device and of a predefined cylindrical container (2), the concentric container opening (21) of which has a diameter (dDo) that is 70 to 99.5% of the container inside diameter (dDi). The filling device is equipped with a filling valve (1), which has a piston (10, 100) controllably guided in a filling tube (11, 112). The filling device serves to fill the cylindrical container (2) and, for this purpose, has an outside diameter (dFa) that is coordinated with the diameter (dDo) of the container opening (21) such that a filling tip of the filling valve (1) is received into the container (2) without friction and, to the extent possibly, without play. In the container (2), the inserted filling tip of the filling valve (1) occupies a volume (VF) that lies in a range of 49 to 99% of the container volume (VD). The method, which is carried out without a vent tube and substantially without measuring means, is based on the fact that the filling valve (1), when received in the container (2), displaces a corresponding gas volume out of the container (2) or compresses a corresponding gas volume in the container (2), and then the filling valve (1) is opened and is moved upward in a coordinated, controlled manner in such a way that a lower-layer filling process is achieved, in which the fluid level always lies above the end face of the filling valve (1). The predefined filling volume in the container (2) is achieved when the upward motion is ended, and thus the filling valve (1) can be closed and removed from the container (2).

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