

Title (en)

RINSING MACHINE FOR BOTTLES AND METHOD FOR RINSING BOTTLES

Title (de)

SPÜLMASCHINE FÜR FLASCHEN UND VERFAHREN ZUM SPÜLEN VON FLASCHEN

Title (fr)

MACHINE DE RINÇAGE POUR BOUTEILLES ET PROCÉDÉ DE RINÇAGE DE BOUTEILLES

Publication

EP 4335561 A1 20240313 (EN)

Application

EP 23190852 A 20230810

Priority

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Abstract (en)

The present invention relates to a rinsing machine (1) for bottles, comprising: - a support structure (2); - one or more rinsing grippers (10) connected to said support structure (2); - means (3) for moving and operating grippers (10). Each rinsing gripper (10) comprises: - a fixing structure (11) anchored to said support structure (2) to connect the respective rinsing gripper to said support structure (2); - a bottle manipulator (12) which is configured to releasably grasp a bottle and is movably connected to said fixing structure (11) to be moved by said means (3) for moving and operating grippers (10) between a rest position, in which the manipulator (12) retains the bottle by orienting it with the respective mouth facing upwards, and a working position, in which the manipulator (12) retains the bottle by orienting it with the respective mouth facing downwards; - an injection nozzle (13) which is configured to inject a treatment liquid inside a bottle engaged by the respective bottle manipulator (12) through the mouth of the bottle itself when said manipulator (12) is in the working position; - a collection manifold (14) for collecting the treatment liquid, which, after injection by means of said nozzle (13), exits the bottle by gravity; - suction means (15) for sucking the treatment liquid residues remaining on the bottle. The collection manifold (14) comprises a collection mouth (141) provided with an annular sealing body (142) at which said collection manifold (14) is fluidically connectable to the bottle at its mouth. The collection manifold (14) is movably connected to said fixing structure (11) to be movable in a coordinated manner with the bottle manipulator (12) by movement means (16). The movement means (16) are configured so that, when said collection manifold (14) is moved, it follows the movement of the manipulator (12) at least for all the positions assumed by the manipulator (12) itself between the working position and a predetermined intermediate position between the working position and the rest position while remaining fluidically connected to the bottle grasped by the manipulator (12). Said annular sealing body (142) is provided with a conical conveying portion (143) intended to be sealingly inserted inside the mouth so as to convey the treatment liquid exiting the bottle directly inside the collection manifold (14), thereby creating a preferential path for discharging the liquid in the manifold.

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