Title (en)

Process for automatically emptying and cleaning sanitary containers and apparatus for carrying out the process.

Title (de)

Verfahren zur automatischen Entleerung und Reinigung von Hygienegefässen und Vorrichtung zu seiner Durchführung.

Title (fr)

Procédé pour vider et laver automatiquement des récipients sanitaires et dispositif pour sa mise en oeuvre.

Publication

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Application

EP 83101940 A 19830228

Priority

DE 3209305 A 19820315

Abstract (en)

1. Method for the automatic emptying and cleaning of hygiene receptables with the following computerized process steps by motor drive of the individual movements : - introduction of the filled hygiene receptable (19) into a mounting support (4), constructed as part of a turning device and pivotable about a horizontal swivel axis in the interior of a rinsing chamber (1), - closing of a vertically slideable door (2) on the front side of the rinsing chamber (1) through waterproof sealing of the rinsing chamber (1) externally and swiveling of the hygiene receptable about the swivel axis for emptying, - cleaning of the interior of the rinsing chamber (1) with water from a water tank (11) above the rinsing chamber (1), - internal cleaning of the emptied hygiene receptable (19) with water over at least one nozzle (15), - complete removal of the cleaning water via syphon (18) in the lower conical part (17) of the rinsing chamber (1), - introduction of steam into the rinsing chamber (1) for the disinfection from an evaporator situated outside the device, - cooling with cold water, opening of the door (2) by swiveling the support (4) at the same time and removal of the hygiene receptable (19), characterized in that - the cleaning of the interior of the rinsing chamber (1) after shutting and emptying the hygiene receptable (19) with pressure water over a spraying nozzle (8) situated at the ceiling of the rinsing chamber (1) is carried out in such a way that all inner surfaces of the rinsing chamber (1) as well as all outer surfaces of the hygiene receptable (19) are completely wetted and cleaned for a while, and the emptied contents of the hygiene receptable (19) is completely removed through cleaning water via syphon (18) of the lower conical part (17) of the rinsing chamber, - after switching off the spraying nozzle (8) and opening of a pipe (12) leading through the wall of the rinsing chamber (1) which is connected with a pipe (14) by means of a revolving turret (13) in the interior of the rinsing chamber (1), and which is connected detachably with the turning device (3), the pressure water being intensively and optimally injected into the hygiene receptable via a nozzle (15) situated about above the middle of the opening of the hygiene receptable (19) for the complete inner cleaning by a flow pressure higher than the water pressure at the nozzle (8), - that the disinfection of the emptied and cleaned hygiene receptable (19) and of the interior of the rinsing chamber (1) is carried out in such a way that warm water is introduced into the upper water tank (11) through pipe (27) and is pressed into the funnel-shaped extension (29) of a pipe (30) over a short free-distance (28) above the water surface, which leaves the water tank (11) again, and the warm water leading downwards over a U-shaped bent distance (31) into a steam generator, and the steam produced therein is introduced into the rinsing chamber (1) above the conical part (17), thus preventing the retreat of the steam by standing water in the U-shaped bent distance (31), - and thereafter the door (2) is opened to the top by swiveling the mounting support (4) at the same time in the turning device (3) in reverse swivel direction, and the emptied, cleaned and disinfected hygiene receptable is removed.

Abstract (de)

Das Verfahren beinhaltet folgende Verfahrensstufen: Einführen der gefüllten Hygiene-Gefäße (19), Schließen der sich absenkenden Tür ohne Berührung unter gleichzeitiger Abdichtung der Spülkammer, Entleerung des Gefäßes in den konischen Teil (17) des Spülraumes durch Drehung synchron mit dem Schließen mit definierter Drehung, Reinigung des Innenraumes mit Druckwasser über Drehdüse (8), derart, daß alle Flächen benetzt und gereinigt werden unter Entfernung des Reinigungswassers, Abschalten der Drehdüse, Öffnen einer Leitung (12), die das Druckwasser mit erhöhtem Fließdruck einführt, Öffnen der Tür und Drehung der Halterung in umgekehrter Richtung und Entnahme des gereinigten Gefäßes, Wiederholung der Verfahrensstufen zur periodischen, automatischen Entleerung und Reinigung, Steuerung der Maßnahmen durch Programmsteuerung. Die Anmeldung betrifft ferner alternative Maßnahmen der Durchführung des Verfahrens sowie die Desinfektion der gereinigten Gefäße und des Innen raumes der Spülkammer durch Warmwasser, das über eine kurze Freiluftstrecke in eine andere Leitung oberhalb des Wasserspiegels im oberen Wasserbehälter geführt wird und danach über eine U-förmig gebogene Strecke in den Dampfgenerator eintritt und Verlustwasser aufgefangen und der Dampfrücktritt verhindert wird. Die Anmeldung betrifft auch eine Vorrichtung zur Durchführung des Verfahrens.

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