

Title (en)

IMPROVEMENTS IN DRYING AND CLEANING OBJECTS USING CONTROLLED AEROSOLS AND GASES

Title (de)

VERBESSERUNGEN BEI DER TROCKNUNG UND REINIGUNG VON KÖRPERN UNTER VERWENDUNG VON AEROSOLEN UND GASEN

Title (fr)

AMELIORATIONS APORTEES AU SECHAGE ET AU NETTOYAGE D'OBJETS A L'AIDE D'AEROSOLS ET DE GAZ CONTROLES

Publication

**EP 1235653 A1 20020904 (EN)**

Application

**EP 99954861 A 19991012**

Priority

US 9923749 W 19991012

Abstract (en)

[origin: WO0126830A1] Method and apparatus for cleaning and/or drying objects that may have been wetted or contaminated in a manufacturing process. The objects are submerged in a rinse liquid (27) in an enclosed chamber (11), and aerosol particles (39) from a selected liquid (37) are introduced into the chamber above the rinse liquid surface (29), forming a thin film (30) on this surface. As the rinse liquid is slowly drained (41), some aerosol particles settle onto the exposed surfaces (14A, 14B, 14C) of the objects, and displace and remove rinse liquid residues from the exposed surfaces by a "chemical squeegeeing" effect. Surface contaminants are also removed by this process. Chamber pressure is maintained at or near the external environment pressure as the rinse liquid is drained from the chamber. Inert gas flow is employed to provide aerosol particles of smaller size and/or with greater dispersion within the chamber. Continuous filtering and shunt filtering (159, 161, 175) are employed to remove most contaminants from the selected liquid. A flow deflector redirects initial flow of the selected liquid to a supplementary filter, to remove most of the contaminant particle "spike" that appears when a system is first (re)activated. An improved surface for aerosol particle production is provided.

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IPC 8 full level

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