

Title (en)  
PORTABLE SUCTION DEVICE FOR SURFACE CLEANING

Title (de)  
TRAGBARE SAUGVORRICHTUNG ZUR OBERFLÄCHENREINIGUNG

Title (fr)  
DISPOSITIF D'ASPIRATION PORTATIF DE NETTOYAGE DE SURFACE

Publication  
**EP 2868249 A1 20150506 (EN)**

Application  
**EP 13872858 A 20130125**

Priority  
CN 2013000076 W 20130125

Abstract (en)  
The present invention relates to a suction apparatus for surface cleaning, comprising: a suction nozzle, a suction channel connected to the suction nozzle, a water collection container, and a water-air separation apparatus used for separating a liquid-air mixture; the suction channel is arranged inside the water collection container in a penetrating manner, and the water-air separation apparatus is serially arranged on the suction apparatus; the water-air separation apparatus comprises a rotating body arranged inside the suction channel and adapted to rotate, and a rotary shaft of the rotating body is arranged along an airflow direction in the suction channel; and a gap in communication with the water collection container is arranged on the suction apparatus adjacent to the rotating body. The present invention implements separation of liquid and air by using a rotating centrifugation principle, when the liquid-air mixture flows to the rotating body, liquid rotates with the rotating body, generates a centrifugal force, and under the effect of the centrifugal force, enters the water collection container via the gap on the suction channel, and air is discharged via the suction channel, thereby implementing separation of the liquid and air.

IPC 8 full level  
**A47L 7/00** (2006.01); **A47L 1/05** (2006.01)

CPC (source: EP)  
**A47L 1/05** (2013.01); **A47L 7/0004** (2013.01); **A47L 7/0023** (2013.01)

Cited by  
CN106137037A; CN107811575A; US10736477B2

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 2868249 A1 20150506**; **EP 2868249 A4 20151007**; **EP 2868249 B1 20161123**; WO 2014113901 A1 20140731

DOCDB simple family (application)  
**EP 13872858 A 20130125**; CN 2013000076 W 20130125