

Title (en)
Toilet bowl

Title (de)
Toilettenschüssel

Title (fr)
Cuvette de toilettes

Publication
EP 1120500 A2 20010801 (DE)

Application
EP 01100666 A 20010111

Priority
DE 10002070 A 20000118

Abstract (en)

The system has at least one sanitary device producing waste water, which travels to a collection arrangement (110) under gravity. The collection arrangement has a first suction and ventilation valves and is connected by a negative pressure line to a collection receptacle and joined to a negative pressure source. The waste water can also be transported to the negative pressure line by opening a second suction valve assigned to the sanitary device. The waste water from the sanitary device is collected in a first casing (112) or a first intermediate container. Either the first casing has a base part (116) to generate a standing pressure with a first valve connected to a standing pressure membrane, a second valve connected to a control membrane and a third valve connected to a switching membrane for connecting the membrane to a negative pressure line, or the first casing is divided into two chambers (122,124) by a membrane (118), with the first chamber having an inlet for the waste water and an opening (142) for the suction pipe (134), which is opened or closed by the membrane moving under the forces of springs (150-154). The first intermediate container is connected to a control arrangement, which is connected to a first line through a third check valve connected to a negative pressure line and to a second line through a second ventilation valve connected to atmospheric pressure. The second ventilation valve is connected to a third line through the third check valve, to prevent flow if there is an over pressure. A second suction valve in a second casing is operated by a fourth valve, which is adjusted by a fourth membrane that divides the second casing into a third chamber, which is connected to negative pressure, and a fourth chamber, which is connected to atmospheric pressure. A spring element acts on the fourth membrane towards the fourth chamber, to move the fourth membrane and operate the fourth valve. The waste water is drawn directly into the collection receptacle or a second intermediate container through a second suction valve. A sensor element is arranged in the second intermediate chamber, which controls a fourth suction valve and a connection to the atmosphere, according to the amount of waste water collected in the second intermediate chamber.

Abstract (de)

Die Erfindung bezieht sich auf eine Toilettenschüssel (10), insbesondere bestimmt für eine Vakuum-Toilettenanlage, mit im oberen Randbereich der Toilettenschüssel angeordnete Düse (22) zum Abgeben von die Toilettenschüssel innenflächig besprühender Flüssigkeit sowie einem unterhalb der Düse vorhandenen Überlauf (28). Um mit konstruktiv einfachen Maßnahmen sicherzustellen, dass im Störfall in der Toilettenschüssel angesammeltes Wasser nicht in den Bereich der Düsen ansteigen kann, ohne dass ein Entleeren der Toilettenschüssel beeinträchtigt wird, wird vorgeschlagen, dass der Überlauf eine vom Toilettenschüsselinneren ausgehende kanal- oder kammerförmigen Aussparung (30) der Toilettenschüssel umfasst, die in einen zum Äußeren der Toilettenschüssel führenden Auslass übergeht oder einen solchen aufweist. <IMAGE>

IPC 1-7
E03D 11/13; **E03D 11/06**

IPC 8 full level
E03D 11/10 (2006.01); **E03D 11/13** (2006.01); **E03F 1/00** (2006.01)

CPC (source: EP)
E03D 11/10 (2013.01); **E03D 11/13** (2013.01); **E03F 1/006** (2013.01)

Citation (applicant)
• DE 29700985 U1 19980520 - SANIVAC VAKUUMTECHNIK GMBH [DE]
• DE 2529169 A1 19760122 - IFOE AB
• EP 0019449 A1 19801126 - IDEAL STANDARD [DE]

Cited by
DE102006010569A1; EP2604761B1; WO2006079687A1; WO2013087195A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1120500 A2 20010801; **EP 1120500 A3 20011031**; **EP 1120500 B1 20070606**; AT E364111 T1 20070615; AT E374870 T1 20071015; DE 10002070 A1 20010809; DE 10002070 C2 20011220; DE 10065985 A1 20020814; DE 10065985 B4 20050525; DE 50112579 D1 20070719; DE 50113098 D1 20071115; EP 1493874 A1 20050105; EP 1493874 B1 20071003

DOCDB simple family (application)
EP 01100666 A 20010111; AT 01100666 T 20010111; AT 04015717 T 20010111; DE 10002070 A 20000118; DE 10065985 A 20000118; DE 50112579 T 20010111; DE 50113098 T 20010111; EP 04015717 A 20010111