

Title (en)
RADIAL-FLOW FLUIDIZABLE FILTER

Title (de)
FLUIDISIERBARES FILTER MIT RADIALER STRÖMUNG

Title (fr)
FILTRE FLUIDISABLE A ECOULEMENT RADIAL

Publication
EP 0909207 A4 20001004 (EN)

Application
EP 97930996 A 19970523

Priority

- US 9708942 W 19970523
- US 1816896 P 19960523
- US 2367996 P 19960817

Abstract (en)
[origin: WO9744111A1] A radial-flow filter (120) employing nonbonded granular particles (56) for filtering impurities from an influent, and that can be backwashed by fluidizing the granular particles (56) to free the impurities therefrom. During a backwashing operation, a backwash liquid applies an upwardly-directed drag force on an upper portion of the granular particles (56) to lift the same into a backwash chamber (62) for fluidization. Once the top portion of the granular particles (56) of the filtration bed is fluidized, the backwash liquid applies an upward force on a subsequent portion of the granular bed, thereby fluidizing the granular particles (56) in the backwash chamber (62). Subsequent sections of the granular bed are fluidized in a similar manner to thereby completely clean the granular particles (56). After the backwash operation, the granular particles (56) fall back to the filtration chamber (156) and form a filter bed for carrying out a filtration operation.

IPC 1-7
B01D 24/46; **B01D 24/08**; **B01D 24/42**

IPC 8 full level
B01D 24/08 (2006.01); **B01D 35/153** (2006.01)

CPC (source: EP)
B01D 24/08 (2013.01); **B01D 24/42** (2013.01); **B01D 24/4631** (2013.01); **B01D 24/4668** (2013.01); **B01D 35/153** (2013.01); **B01D 2201/44** (2013.01)

Citation (search report)

- [XY] US 4643836 A 19870217 - SCHMID LAWRENCE A [US]
- [YA] US 4019985 A 19770426 - FULLER MATTHEW H, et al
- See references of WO 9744111A1

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

DOCDB simple family (publication)
WO 9744111 A1 19971127; AU 3473997 A 19971209; AU 715029 B2 20000113; CA 2256385 A1 19971127; CA 2256385 C 20051206; CN 1080131 C 20020306; CN 1226182 A 19990818; EP 0909207 A1 19990421; EP 0909207 A4 20001004; HK 1022114 A1 20000728; MX PA98010890 A 20040521

DOCDB simple family (application)
US 9708942 W 19970523; AU 3473997 A 19970523; CA 2256385 A 19970523; CN 97196727 A 19970523; EP 97930996 A 19970523; HK 00100902 A 20000215; MX 9810890 A 19970523