

Title (en)
APPARATUS FOR SEPARATING PARTICULATES FROM A FLUID STREAM

Title (de)
VORRICHTUNG ZUR TRENNUNG VON PARTIKELN AUS EINEM FLÜSSIGKEITSSTROM

Title (fr)
APPAREIL DE SEPARATION APPAREIL DE SEPARATION APPAREIL DE SEPARATION

Publication
EP 1824576 A4 20090429 (EN)

Application
EP 05854143 A 20051215

Priority

- US 2005045368 W 20051215
- US 1635804 A 20041217
- US 1741504 A 20041220

Abstract (en)
[origin: WO2006065964A1] A screen apparatus (100) for improved separation of particulates from a fluid stream is configured and arranged to filter relatively large particulates from the fluid stream as the fluid stream passes from a storage chamber (16) of the tank (11) to a tank outlet (13) and is removably affixed to a diverter, such as a baffle (14), used to divert a portion or all of the fluid into the storage chamber. The screen (100) is preferably shaped to substantially conform to the shape of the diverter (14) to aid in the smoothing of the fluid flow within the retention section of the tank and may be entirely porous, or it may be non-porous at its leading edge (104) to minimize particulate build-up at the transition from the tank interior wall to the screen (100). The apparatus may optionally include a second screen (200) to provide additional filtering of floating particulates as the fluid level in the tank exceeds the crown elevation of the inlet (12). The second screen (200) may be substantially horizontally oriented and may be combined with a collection weir (201) and may be conical in shape. A high flow bypass arrangement for the separation system may include an upper baffle (300) and a lower baffle (310) or a screen (320) instead of the lower baffle (310). The upper baffle (300) is set closer to the center of the tank (11) than the lower baffle (310) or screen (320), thereby providing more volume for flow diversion behind the upper baffle (300).

IPC 8 full level
B01D 21/00 (2006.01); **B01D 21/02** (2006.01); **E02F 5/14** (2006.01)

CPC (source: EP)
B01D 21/0012 (2013.01); **B01D 21/0039** (2013.01); **B01D 21/0042** (2013.01); **B01D 21/2411** (2013.01); **B01D 21/2433** (2013.01); **B01D 21/2483** (2013.01); **B01D 2221/12** (2013.01)

Citation (search report)

- [X] US 6780310 B1 20040824 - HOWE GLENN B [US]
- [X] FR 1325639 A 19630503
- [X] US 5698099 A 19971216 - FAGAN GARRY WILLIAM [GB], et al
- [A] JP H09273210 A 19971021 - SHIMODA KIKO KK
- [A] JP H081153 A 19960109 - HOOKOSU KK
- See references of WO 2006065964A1

Cited by
CN111705899A

Designated contracting state (EPC)
DE FR GB IE IT

DOCDB simple family (publication)
WO 2006065964 A1 20060622; WO 2006065964 A8 20061228; AU 2005316557 A1 20060622; AU 2005316557 B2 20100318; CA 2588600 A1 20060622; EP 1824576 A1 20070829; EP 1824576 A4 20090429; NZ 555652 A 20101029

DOCDB simple family (application)
US 2005045368 W 20051215; AU 2005316557 A 20051215; CA 2588600 A 20051215; EP 05854143 A 20051215; NZ 55565205 A 20051215