

Title (en)
METHOD AND APPARATUS FOR HEATING AND PURIFYING LIQUIDS

Title (de)
VERFAHREN UND VORRICHTUNG ZUM ERWÄRMEN UND REINIGEN VON FLÜSSIGKEITEN

Title (fr)
PROCÉDÉ ET APPAREIL POUR CHAUFFER ET PURIFIER DES LIQUIDES

Publication
EP 3568649 A4 20201209 (EN)

Application
EP 18738867 A 20180112

Priority
• US 201715405660 A 20170113
• US 2018013454 W 20180112

Abstract (en)
[origin: WO2018132640A1] A fluid cavitation apparatus includes a housing, an external rotor with cavitation bores in an outer surface thereof, and a motor for rotating the external rotor. An inner surface of the housing is spaced from the outer surface of the external rotor to create a fluid cavitation zone. The inner surface of the housing is configured with a spiral shape and tunnel zone to enhance the thermal transfer characteristics of the fluid for heating, cooling, and purification. A control system to facilitate proper motor speed, and fluid behavior to enhance the cavitation process.

IPC 8 full level
F24V 40/00 (2018.01)

CPC (source: EP IL KR RU)
F22B 3/06 (2013.01 - EP IL KR); **F24V 40/00** (2018.04 - EP IL KR); **F24V 40/10** (2018.04 - IL RU); **F24V 40/10** (2018.04 - EP)

Citation (search report)
• [X] EP 2918945 A1 20150916 - US INTERCORP LLC [US]
• [X] WO 2012164322 A1 20121206 - FABIAN JOZSEF [HU]
• [A] KR 20160009461 A 20160126 - LEE SANG HO [KR], et al
• [A] KR 101036662 B1 20110525 - SONG DONG JOO [KR], et al
• See references of WO 2018132640A1

Designated contracting state (EPC)
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WO 2018132640 A1 20180719; AU 2018207118 A1 20190829; AU 2018207118 B2 20231109; BR 112019014380 A2 20200211; BR 112019014380 B1 20220816; CA 3050252 A1 20180719; CN 110637193 A 20191231; CN 110637193 B 20211123; EP 3568649 A1 20191120; EP 3568649 A4 20201209; IL 267988 A 20190926; IL 267988 B1 20230401; IL 267988 B2 20230801; JP 2020514671 A 20200521; JP 7152417 B2 20221012; KR 102490810 B1 20230119; KR 20190109443 A 20190925; MX 2019008332 A 20191216; MY 195794 A 20230221; RU 2019125132 A 20210215; RU 2019125132 A3 20210524; RU 2752504 C2 20210728; SA 519402029 B1 20220920; SG 11201906491Q A 20190827

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