

Title (en)
ELECTRICAL HEATING APPARATUS FOR FLUIDS

Publication
EP 0239928 A3 19880302 (DE)

Application
EP 87104432 A 19870325

Priority
PL 25871586 A 19860401

Abstract (en)
[origin: EP0239928A2] An electrical heating apparatus for fluids, especially for fillers in the sugar industry, consists of a metallic housing (1) which represents the neutral electrode and is connected to earth. A second, neutral electrode (7), in the shape of a longitudinal cylinder, is arranged concentrically with respect to the housing (1). In the centre of the heating apparatus there is an active electrode (10) in the shape of a longitudinal rod. Arranged concentrically thereto is a second, active electrode (9) in the shape of a longitudinal cylinder, which is electrically connected to the active electrode (10). The active electrodes are arranged alternately with respect to the neutral electrodes and are insulated therefrom, while being connected to one another and to the active pole of the electrical voltage source. The neutral electrodes (1,7) are connected to one another and to the neutral pole of the electrical voltage source. By means of the arrangement of the electrodes, the fluid flowing through the heating apparatus is split into partial flows. The transverse currents flowing from the active electrodes (9 and 10) to the neutral electrodes (1 and 7) heat the fluid which is supplied to the heating apparatus via the inlet nozzle (4) and is extracted via the outlet nozzle (6). <IMAGE>

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H05B 3/60

IPC 8 full level
F24H 1/10 (2006.01); **H05B 3/60** (2006.01)

CPC (source: EP)
F24H 1/106 (2013.01); **H05B 3/60** (2013.01)

Citation (search report)
• [A] US 1525998 A 19250210 - KALIN FREDERICK T
• [A] US 1534079 A 19250421 - RUSSELL ANDREW N, et al
• [A] US 4051345 A 19770927 - EATON MILTON
• [A] FR 2384412 A1 19781013 - FRANCE SYNDICAT FAB SUCRE [FR]
• [A] US 1916064 A 19330627 - MORTENSEN MARTIN P

Cited by
EP2661589A4; GB2217629A; EP1878315A4; CN103608101A; KR101284499B1; EP2765363A3; WO2006119440A2; WO2007045487A1; WO2007062432A1; JP2013540977A

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