

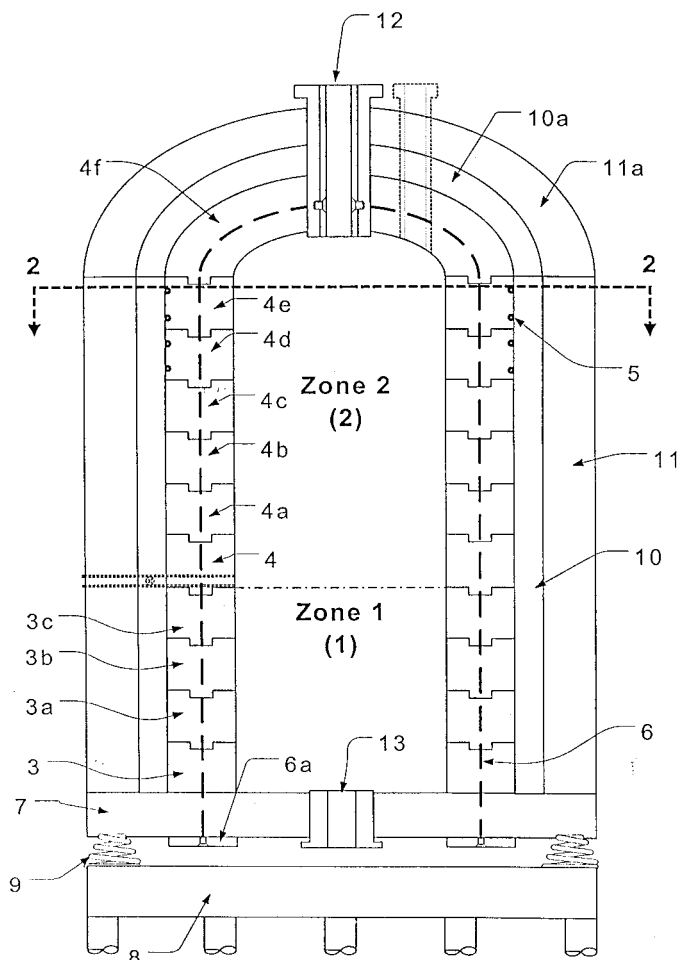


[12] Patent

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[21] Application No.: GCC/P/2001/1154 [22] Filing Date: 24/01/2001 [30] Priority: [31] Priority No. [32] Priority date [33] State PCT/SG00/00024 16/02/2000 WO [72] Inventor: Wee Tiong Huan [73] Owner: The National University Of Singapura, EW2, 1 Engineering Drive 3, Singapore 117576, Singapore [74] Agent : Ali A. AL-Swailem	[51] Int. Cl. ⁷ : C04B; G21C; F16J [56] Cited Documents: - US 4265066 A (UN et al.) 05 May 1981 - US 3893508 A (NEMET) 08 July 1975 - US 3683574 A (VAESSEN) 15 August 1972 - DE 3526454 (HOCHTEMPERA TUR- REAKTORBAU GMBH) 23 May 1991

[54] A VESSEL FOR USE IN MULTI-EFFECT DISTILLATION AND /OR SEPATATION PROCESSES

[57] Abstract: The invention relates to a construction method making use of concrete for application in an integral process containment vessel where the entire or part of large-scale vertically stacked multi-effect distillation and/or separation processes and especially vertically stacked multi-effect distillation desalination processes take place. According to the present disclosure, such an integral process containment concrete vessel is divided into at least two different processes zones where each process zone marks a different degree of severity of attack under respective process conditions. In each of the said zones the part of the integral process containment vessel that is in direct contact with the process conditions is constructed by means of a concrete mix that is matched to the process conditions in the said zone. Thus the resultant prestressed integral process containment vessel constructed by means of a multi-layer, and/or multi-segment method or by means of jump-forming, slip-forming, climb-forming or the like, is functionally graded with at least two different concrete mixes possessing significantly different properties and therefore costs and thereby arriving at a durable and cost effective construction method.



No. of claims: 28

No. of figures: 4

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