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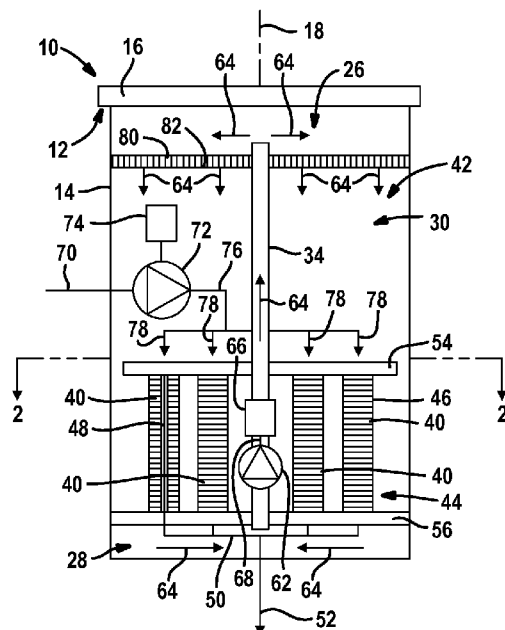
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## Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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(54) Title: CONTINUOUS PROCESS BATCH-OPERATED REVERSE OSMOSIS SYSTEM WITH IN-TANK MEMBRANES AND CIRCULATION OF CONCENTRATE

**FIG. 1**

(57) Abstract: A reverse osmosis system and method for operating the same includes a pressure tank having a first end and a second end, the pressure tank has a first volume adjacent to the first end and a second volume adjacent to the second end and a third volume between the first volume and the second volume and a fluid passage within the tank fluidically coupling the second volume to the first volume. At least one tube sheet separates and prevents the flow of brine directly between the second volume and the third volume. The tube sheets ensure that the brine passes through the tubes comprising membranes, that are disposed within the third volume. The membranes generate permeate and a permeate manifold receives the permeate from the membranes and fluidically communicates the permeate out of the pressure tank. A feed line couples feed fluid into the pressure tank. A first pump pressurizes the feed line. A second pump is disposed within the tank and circulates brine fluid from the second volume through the fluid passage.



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