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(54) Folded tube for an evaporator and evaporator assembly therewith

(57) An evaporator assembly having a first header, a second header, at least two banks of evaporator tubes extending therebetween and in hydraulic communication with the first and second headers. At least one of the evaporator tube may be folded from a unitary strip clad aluminum folded having a thickness (t). The evaporator tube includes a height (h) which is measured from the bottom exterior surface to the top exterior surface, and a corner radius (r_c) defined by the transition radius from the flange segments to the channel walls. The bottom wall includes a width (2w), the corrugated portion includes alternating flange segments abutting the interior surface and channel walls connecting the alternating flange segments, at least one of the alternating adjacent flange segments includes a length (a) cooperating with adjacent the channel walls to define a channel having a width (b). The evaporator tube also includes a number of ports per millimeter width (PPMW) in a range of 0.40 to 1.0 as defined by the equation PPMW = 2/(a+b+t); a Port Shape (PS) ratio of 0.05 to 0.6 as defined by the equation PS ratio = a/b; a non-dimensional gauge (NDG) ratio of 0.11 to 0.21 as defined by the equation NDG ratio = t/h; and a non-dimensional corner radius (NDCR) ratio of 0.10 to 0.5 as defined by the equation NDCR ratio = r_c/2t.

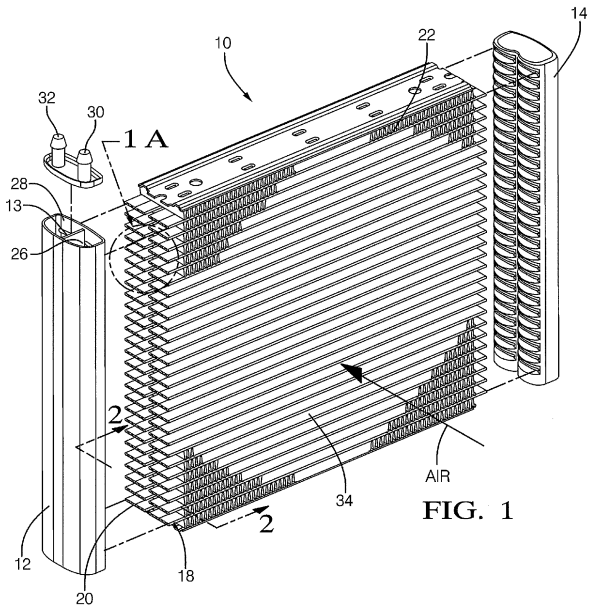

FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 11 16 6227

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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TECHNICAL FIELDS SEARCHED (IPC)

F28D
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	13 February 2018	Merkt, Andreas

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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