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(54) Title: HYBRID HEAT EXCHANGER

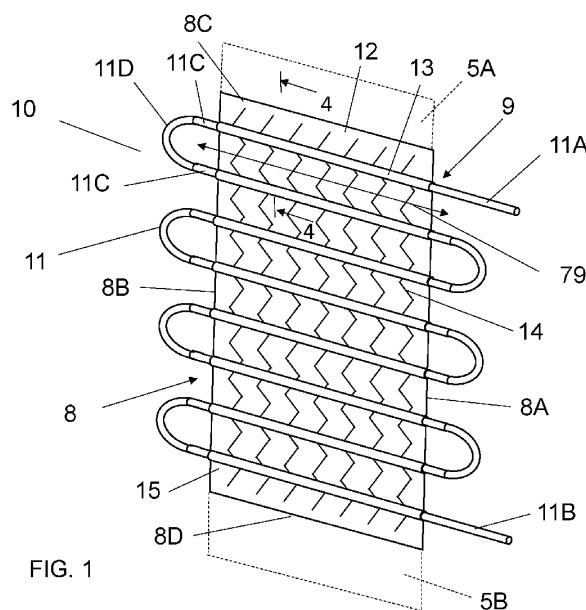


FIG. 1

(57) Abstract: In one aspect, a hybrid heat exchanger that includes a metallic serpentine tube having an inlet end portion to receive a process fluid, an outlet end portion, and a series of runs and return bends directing the process fluid from the inlet end portion to the outlet end portion of the metallic serpentine tube. The hybrid heat exchanger further includes a thermally conductive polymer body thermally integrated with the serpentine tube. The thermally conductive polymer body has an outer surface to be contacted by a fluid, such as air and/or water. The thermally conductive polymer body is configured to transfer heat between the metallic serpentine tube and the fluid contacting the outer surface of the thermally conductive polymer body. The outer surface of the thermally conductive polymer body includes surface enhancement features that affect flow of the fluid across the outer surface of the thermally conductive polymer body.

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