

Title (en)  
HEAT-EXCHANGE NEST PLATES

Title (de)  
WÄRMETAUSCHERHOHLPLATTEN

Title (fr)  
PLAQUES CREUSES D'ECHANGE THERMIQUE

Publication  
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Application  
**EP 11724463 A 20110518**

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Abstract (en)  
[origin: WO2011145065A1] The invention relates to a nest plate (12) manufactured by extrusion-blowing of a polymer or glass parison, between the two jaws of a suitable mould. The nest plate comprises a central area, taken up with a plurality of parallel inner channels (26-28), as well as external couplers (22-24) and transition areas (68-70) between said couplers and said central area. The walls of each channel optionally comprise stiffening raised patterns and, in either case, the thickness and width of said walls is coordinated to guarantee enough rigidity to enable said walls to maintain a substantially uniform, constant inner separation, in two inverse ranges of differential pressures and temperatures, determined by the type of material used. Fluid heat exchangers are made up of a non-constant stack of polymer nest plates, corrugated walls provided with couplers (22-24) constituting pipe sections, welded to one another in order to form collectors. Various improved devices can be manufactured using nest plates having flat walls, made of polymer or glass, used alone or stacked in a coplanar fashion. The invention can be used for fluid heat exchangers, solar water heaters, assembly and cooling panels for photovoltaic modules, and assembly and cooling panels for electronic circuits.

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