

PLATE-TYPE HEAT EXCHANGER AND METHOD FOR PRODUCING SAME

ABSTRACT

5 This plate-type heat exchanger which ensures air-tightness can
be easily produced by performing solid-phase diffusion bonding
without using a brazing material in at least part of the
joining of lateral-end surfaces of plate-type components
constituting a plate-type heat exchanger, and the joining of a
10 channel for upper and lower plate-type components. The present
invention involves: a rectangular plate-type component
constituting the heat exchanger case being a box-type component
provided with a vertical wall section along the peripheral edge
thereof; box-type components (1, 2) which have the same shape
15 being configured in a manner such that the orientation of the
horizontal surface of one of the box-type components is
reversed; layering the box-type components (1, 2) in order;
engaging the upper section of the vertical wall section of the
lower-layer component with the lower section of the vertical
20 wall section of the upper-layer component; setting the angle
(θ) of the vertical wall section to $\theta \leq 30^\circ$; and performing
solid-phase diffusion bonding in at least part of the contact
site between the vertical wall section of the upper-layer
component and the vertical wall section of the lower-layer
25 component.

FIG. 3A and FIG. 3B