

ABSTRACT

METHOD OF MANUFACTURING HEAT EXCHANGER

Provided is a method of manufacturing a heat exchanger by diffusion bonding in which deformation of bonding members as stainless steel plates is suppressed, and releasability (detachability of a bonding member from a release member) after diffusion bonding treatment is excellent. Provided is a method of manufacturing a heat exchanger, the method including layering a plurality of bonding members 1 made of stainless steel, and applying heat and pressure to effect diffusion bonding of the bonding members 1, in which release members 3 are arranged on the both surface sides of the bonding members 1, and holding jigs 4 are arranged so as to sandwich the bonding members 1 through the release members 3, and pressing is then performed through the holding jigs 4 with a pressure device, and in which the diffusion bonding is performed using a combination of the release members 3 and the bonding members 1, the release members 3 including a steel material containing 1.5 mass% or more of Si, and a ratio (F_r/F_p) of the high-temperature strength (F_r) of the release members 3 at 1000°C to the high-temperature strength (F_p) of the bonding members 1 at 1000°C being 0.9 or more.