

ALLOY MEMBER PRODUCTION METHOD AND ALLOY MEMBER

ABSTRACT

Provided are: a method for producing an alloy member that is fabricated by additive manufacturing and has increased mechanical strength and ductility as well as higher corrosion resistance; and the alloy member produced from this method. The alloy member production method comprises: an additive manufacturing step for forming products by additive manufacturing using an alloy powder including each of Co, Cr, Fe, Ni, and Ti in the range of 5-35 atom% and Mo in the range of greater than 0 atom% and 8 atom% or less, the balance comprising unavoidable impurities; a heat treatment step for raising a temperature of the products through heating, and holding the products in the temperature range of 1080-1180°C; and a forced cooling step for cooling the products after the heat treatment in the temperature range from the holding temperature to 800°C at a cooling rate of 110-2400°C/min.

Fig. 1