Successful Production of Ultrawide Nickel Alloy Plate with High Corrosion and Heat Resistance

Nippon Yakin has successfully produced an ultrawide plate, 3,510 mm in width and 50 mm in thickness, of the NAS 625 nickel alloy with high corrosion and heat resistance (UNS N06625; hereinafter referred to as "this Product"). This Product has one of the world's widest and thickest sizes among the high nickel alloy products.

Significance of production

A high corrosion- and heat-resistant nickel alloy has such high-temperature strength that it is difficult to roll. We have succeeded in rolling it by adopting a wide rolling machine of Nanjing Iron and Steel Co., Ltd., with which we have a cooperative relationship through a joint venture, namely Nisco Nippon Yakin Kogyo Nanjing Co., Ltd., and by introducing our accumulated know-how. This successful production follows the previous case with the NAS 800T ultrawide plate.

Applications and advantage of the ultrawide and extra-thick material

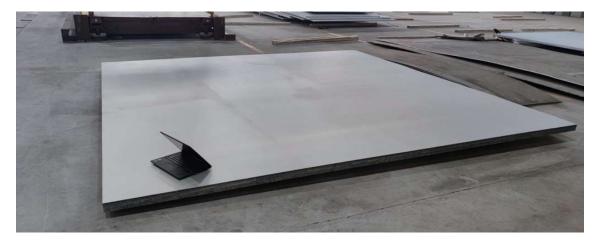
This Product is expected to be used in petrochemical plants and other facilities. Many of the plant facilities of this kind are constructed by welding. Use of ultrawide materials means a small number of welding processes required and leads to cost and lead time reduction. On the assumption that strength may be required, we have recently produced a material with a thickness exceeding 50 mm.

Advantage in transport

Ultrawide plates have several drawbacks in terms of transport that derive from their size. They have been part of the obstacles to production. As in the case with the NAS 800T, this problem can be cleared by selling and transporting them to Chinese customers with strong demand via our joint venture. This solution provides an advantage in the form of a shorter lead time in comparison with exporting products manufactured in Japan to China.

Synergy with the joint venture partner

We will continue to build closer ties with Nanjing Iron and Steel Co., Ltd. as a joint venture partner to meet the increasingly sophisticated needs of customers.



A NAS 625 ultrawide plate, sized 50 mm in thickness and 3,510 mm in width, created by successful rolling. The laptop seen in the bottom left of the photo is for the purpose of size comparison.

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