



High-precision retort pipe fabrication using difficult-to-process UNS N06002

Retort pipe fabrication for industrial furnaces.

SEIKOH's technology achieves high precision with "UNS N06002," a difficult-to-process material that many companies hesitate to process.

Challenging machining projects are where we shine. This processing project earned the customer's trust by meeting stringent precision requirements and fulfilling rigorous quality verification standards. An industrial furnace manufacturer consulted us regarding the fabrication of retort pipes, which serve as the heart of heat treatment furnaces. Due to the specialized nature of the material used and the high level of precision required, this was a difficult project with very few companies capable of carrying out the processing.



SEIKOH's Solutions

◆ Taking on the challenge of difficult-to-process "UNS N06002" and meeting strict tolerances

The "UNS N06002" used in this project is a nickel-based alloy known for its excellent heat resistance and oxidation resistance, while also being extremely hard and difficult to process. In this project, it was not enough simply to form the material into shape. Extremely strict tolerances were required for the pipe's roundness and straightness.

Through our proprietary processing technology and thorough process control, we cleared this high hurdle and achieved distortion-free, extremely high-precision pipes.

◆ Uncompromising quality control: PT inspection of all weld seams and meeting strict documentation requirements

Because these products are used in the harsh environment of industrial furnaces, there can be no compromise on product integrity. For the welded sections, we performed PT (penetrant testing) on all weld seams to ensure that even minute defects would not be overlooked.

In addition, this project required the submission of various manufacturing records and quality certificates. This was a highly meticulous and demanding task that is not frequently required in the industry. However, SEIKOH regards this strict documentation support as an important part of quality assurance for the customer's confidence, and prepared and submitted all required documents without compromise.

◆ The confidence that SEIKOH can make difficult projects take shape

Given the difficulty of the processing itself, combined with the complexity of inspections and documentation procedures, this was the kind of project that many companies would hesitate to take on. However, we overcame these challenges through advanced technical capabilities and a sincere approach, earning deep trust from the customer. SEIKOH will continue to respond head-on to difficult processing challenges for customers who are unsure where to turn.