Press release

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Sandvik launches furnace rollers made from Kanthal APMT™

New furnace rollers made from Kanthal APMT will outlast rollers made from conventional materials by more than four times. Even in temperatures as high as 1250°C (2280°F), rollers made from Kanthal APMT remain straight and rigid, enabling steel mills to boost productivity, increase quality and save on maintenance and spare parts storage.

Effective March 1, Sandvik is launching new furnace rollers made from Kanthal APMT that outlast rollers made from conventional alloys by more than four times. In a first phase the furnace rollers will be offered for roller hearth furnaces and walking beam furnaces in Europe, the Middle East and Africa (EMEA). The rollers will be offered to other markets in subsequent phases.

Kanthal APMT, an iron-chromium-aluminum (FeCrAl) alloy, is ideal for high temperature applications such as furnace rollers, used for transporting products that are annealed in air atmosphere.

In particular, Kanthal APMT is characterized by a unique combination of high creep strength and excellent resistance to oxidation at high temperatures, critical for high-performance furnace rollers. Tubes made from Kanthal APMT can withstand temperatures up to 1250°C (2280°F).

Consequently, furnace rollers made from Kanthal APMT remain straight and rigid at these temperatures, reducing the tendency to sag and bend—problems commonly associated with conventional metallic tube materials such as nickel-chromium (NiCr) alloys. The superior performance of these rollers boosts productivity, reduces maintenance costs and contributes to a cleaner environment.

Advantages over traditional rollers

For traditional rollers, excessive oxidation in standard high-temperature furnaces with open-flame burners limit these rollers' lifespan sometimes to only six to 12 months before reconditioning is required, compared to up to four years with rollers made from Kanthal APMT.

The new rollers require only one maintenance stop instead of two, providing seven to eight days extra production. With a typical production rate of one ton an hour, the steel mill can expect to produce an extra 170 tons a year. The higher reliability also means that costs for large numbers of spare rollers can be eliminated.

Rollers made from Kanthal APMT, together with a new roller design, offer a superior surface that actually improves the quality of the tube products. In contrast, traditional rollers can compromise the quality of tubes due to the rough and uneven surfaces formed on these rollers.

In addition to the higher temperature capabilities, rollers made from Kanthal APMT require less, if any, water for cooling purposes, reducing energy requirements and making the furnace designed with these rollers a greener approach to tube manufacturing.

Sandvik Group
The Sandvik Group is a global high technology enterprise with 47,000 employees in 130 countries. Sandvik's operations are concentrated on three core businesses: Sandvik Tooling, Sandvik Mining and Construction and Sandvik Materials Technology – areas in which the group holds leading global positions in selected niches.

Sandvik Materials Technology
Sandvik Materials Technology is a world-leading manufacturer of high value-added products in advanced stainless steels and special alloys, and of medical implants, steel belt-based systems and industrial heating solutions.

Kanthal is the brand for Sandvik's heating technology products and services.

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