

Press release

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aNIR® heating booster controls/improves steel quality

In a thin-strip plant of a leading international American steel group, a Castrip-plant has been upgraded with an aNIR® heating booster and put back into successful commercial production operation for improved "hot roll quality" after only one week of commissioning. Thanks to the aNIR® (advanced NIR)-technology based photonic high-performance heating booster "NIR-Rollheater 1800" developed by adphos, local temperature differences caused by impurities before the quenching rolls are corrected and a homogeneous temperature distribution is achieved, resulting in significant improvements in product quality.

Only the possible high-power density (1,600 kW/m²), as well as the locally adjustable heating power across the web width (at intervals of only 15 mm (!) and on both sides of the steel web, make this possible in a defined, controlled and automated manner, at production speeds of up to 150 m/min. The special and robust aNIR®-design, which is used in extremely confined spaces at ambient temperatures of up to 350° C and with the unavoidable local contamination, makes the system so unique. No other technology (e.g. laser, induction, ...) has been able to implement such a production-suitable system.

adphos offers further high-performance thermal process solutions for heating and drying process solutions for heating and drying processes for surface coatings in the steel sector. All adphos solutions are based on the company's proprietary aNIR®-technology, a high-performance photonic energy source that achieves spontaneous drying in combination with tempered impingement air. The aNIR®-solutions are purely electro-thermal and, therefore, completely CO₂ emission-free.

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