

Design of an electric drive system for FO oil pump for the furnace at Thai Nguyen steel rolling mill.

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Abstract: This topic focuses on the design and implementation of an electric drive system for pumping FO (Fuel Oil) to enhance the operational efficiency of the furnace at the Thai Nguyen steel rolling plant. The reason for choosing this topic stems from the need to improve fuel transmission technology in the metallurgical industry, thereby reducing energy consumption and increasing system reliability. The research methodology includes assessing the current technical status, analyzing technological requirements, designing a theoretical model, and conducting practical tests based on a combination of academic methods and advanced technology applications. The expected outcome of the topic is a comprehensive solution for optimizing the FO oil pumping process, making a significant contribution to the sustainable development of the steel industry.

Keywords: Electric drive system, FO oil pump, furnace, steel rolling plant, technology improvement.