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Using of modelling tools driving the implementation of DiluJet® Swing Tundish Oxy-fuel burners at one tundish previously air-fuel fired.

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Decarbonization strategies are linked to the reduction of fossil fuels use together with the modelling of the implementation of new oxy-combustion technologies revamping old air-fuel fired tundish.

Tundish are responsible of a good part of the total energy consumption on a mini mill production plant. Decarbonization strategies are linked to the reduction of fossil fuels, and the implementation of well establish oxy-combustion technologies at the tundish preheating stations is helping to reduce CO2 footprint to existing sites without the necessity to make a completely new station. What provide a very limited CAPEX necessity for the new implementation

Modeling helped decide where to implement oxy-fuel burners in order to maintain steel quality while drastically reducing natural gas consumptions and greatly reducing CO2 emissions at the site; responding to the demands of customers and consumers while increasing profitability for shareholders.

Firstly will be described how the auto induced swing technology works. Later we will describe how we used Modelling Technology to decide where to implement self-induced oscillation DiluJet burners at the tundish and finally we will show the results on energy reduction obtained at the customers.

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