

Mechanical design and instrumentation of a tribology device

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This work is part of the constant search of improvement for float glass manufacturing process (glazing for buildings or automobile). Nowadays, we have 2% of loss in the glass production due to flaws during the production. To solve that problem, we have to better understand the conditions in which we create defects. The float glass process requires the contact of hot glass with a colder metal support. This contact can have an impact on the quality of the produced glass through defects, whose generation is dependent from contact conditions (temperature, stress, surface condition, nature of the metal support...).

To improve the understanding of flaws generation, we decided to actively participate in the mechanical design and instrumentation of a tribology device to perform factory tests. These tests will identify key parameters for the optimization of process control.

Starting from an existing machine, we will design a device to play multiple contact conditions. It will be used in real production conditions, with high temperature constraints (the glass is at 630°C).

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