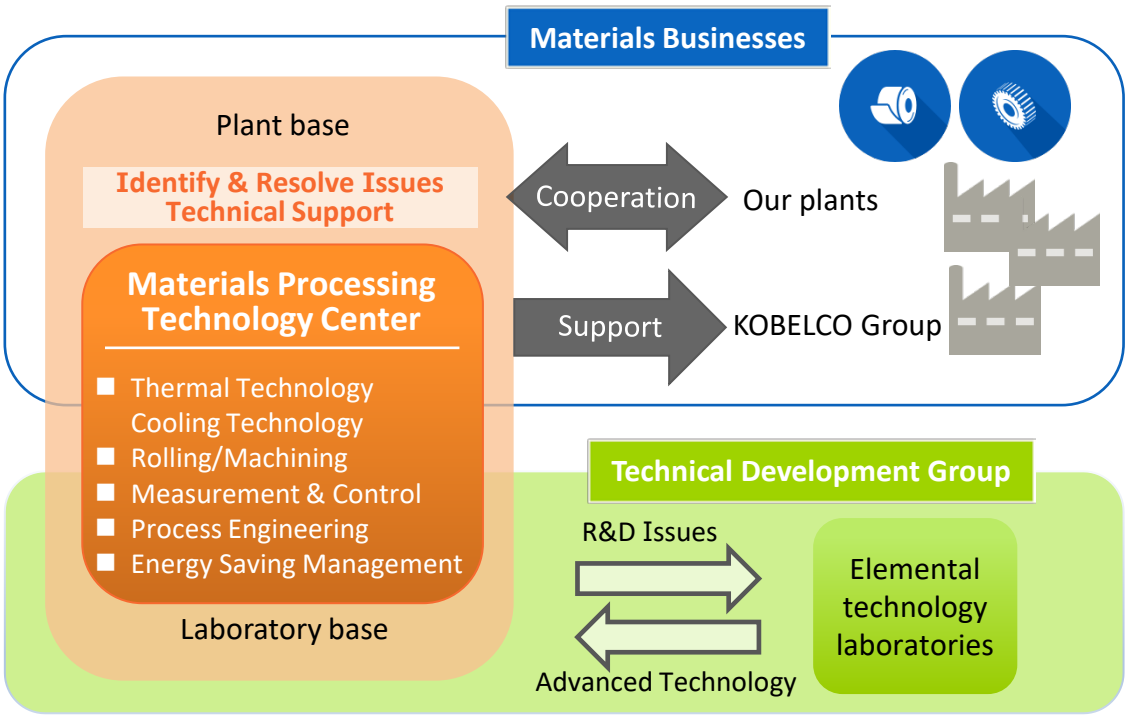
Materials Processing Technology Center

To solve problems that require complex engineering technologies at production sites, we have integrated our expertise and specialized technologies within the KOBELCO Group, and thereby contribute to rapidly resolving process problems. By communicating with all our Group bases, we can develop technologies needed to solve problems related to QMS and '*monozukuri*', and provide the necessary support.



Example of Improvement of Heating and Cooling Process

Based on our technologies of highly efficient/stable/uniform heating, combustion and cooling, we contribute to product quality improvement, energy saving and CO_2 reduction by heat treatment.

■ Improving plate cooling technology in TMCP

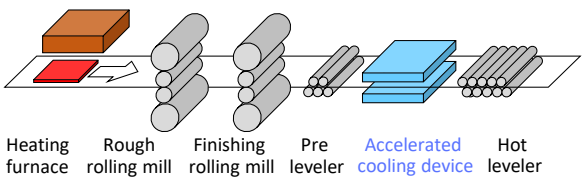
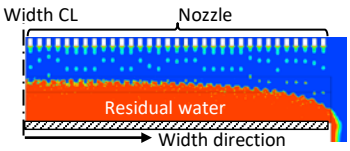
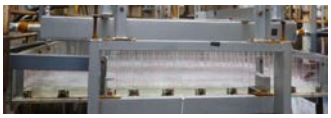


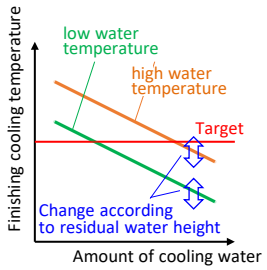
Plate rolling line



Flow analysis of cooling water



Residual water flow in experiment



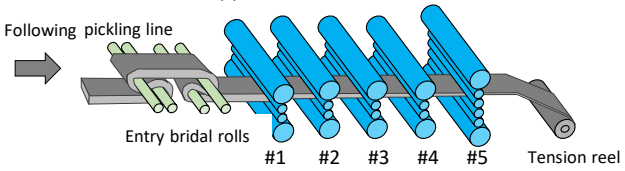
Amount of cooling water model

Analysis modeling of plate temperature in cooling contribute to creation of new TMCP steel products

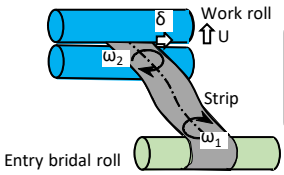
Example of Improvement of Rolling Process

Based on our technology of rolling/machining, we contribute to the improvement of product dimensional accuracy, stable production and yield improvement.

■ Improving the heavy lateral displacements of the strip that sometimes appear in front of the tandem cold mill



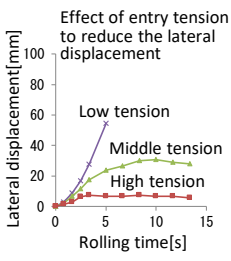
Tandem cold mill



Constraint of the moment of the strip by the bridal roll is taken into account. Deformation of mill and strip are synchronously calculated to predict the lateral displacement of strip.

Modeling of the lateral displacement of strip in front of the Mill

Experiment of lateral displacement using small scale test mill



Reducing the lateral displacement of strip, this technology contributes to the product range expansion of AHSS.