

Abstract: Worldwide steel production for 2010 is at record high levels at 1.4 billion metric tons (which is close to \$1 trillion of market annually), a 15% increase over 2009. Markets served by steel include construction, appliance, energy, automotive etc. There is a need to improve the quality of products and productivity of steelmaking processes/operations. Process modeling is one available tool for optimization. A case study using water modeling of tundish, which resulted in improved quality of stainless steel during continuous casting, will be presented. Product research including the development of new products for energy and automotive markets will also be discussed.