Optimization for the Hydraulic Clamping System of an Internal Circulation Two-Platen Injection Molding Machine

Authors : Jian Wang, Lu Yang, Jiong Peng

Abstract : Internal circulation two-platen clamping system for injection molding machine (IMM) has many potential advantages on energy-saving. In order to estimate its properties, experiments in this paper were carried out. Displacement and pressure of the components were measured. In comparison, the model of hydraulic clamping system was established by using AMESim. The related parameters as well as the energy consumption could be calculated. According to the analysis, the hydraulic system was optimized in order to reduce the energy consumption.

Keywords : AMESim, energy-saving, injection molding machine, internal circulation

Conference Title : ICMME 2015 : International Conference on Mechanical and Materials Engineering

Conference Location : Melbourne, Australia

Conference Dates : December 13-14, 2015