

Abstract

PT. Indosaluyu Primajaya is one of many companies in manufacturing industry in Indonesia with the national market. Production system used make to stock system. There are 3 divisions in this company that is Melting Division, Extrude Division, and Assembly Division, the observed object is Extrude Division. The target of profil aluminium is 170 per production. The waste in Extrude Division is 61,84% and the lead time is 874,99 seconds or 14,58 minutes. In order to do that, the Value Stream Mapping is established to draw the value stream and improvement to elimination waste is made lean manufacturing technics.

The research phase begin with the Current State Drawing to identify the waste that occurred. Then, the Detailed Mapping using Process Activity Mapping is made and results in the most activities that happened like delay 61,84%, operation 35,41%, and transportation 2,74%. The cause of the greatest waste is the waste of unnecessary inventory to increase lead time. Then the Future State Design is began to get the strategy and solution about the problem. The solution for the problem are make kanban card, SMED, 5S, Standardization work, and full work. The lead time at this stage is 654,06 seconds or 10,8 minutes.

Key Words : Extrude Machine, Aluminium Profile, Lean Manufacturing, Value Stream Mapping, Process Activity Mapping.