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## **The Utilization of Lean Manufacturing Tools to Complement the Design for Environment for Reducing the Environmental Impact**

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### **Abstract**

This paper explores the DfE (Design for Environment) as one of the environmental management practices and Lean Manufacturing. The proposal is to present how Lean tools can complement DfE tools in reducing environmental impact. Through literature search with the contribution of several authors on the theme, is analyzed that the Lean Manufacturing aims to improve the quality and productivity and the DfE is aimed at eco-efficiency, which prevents pollution and the degradation of the environment in product development and process. This relationship contributes to sustainable development suggesting the existence of an enabling environment for the realization of people's efforts to reduce waste: by eliminating these wastes, also eliminates part of the environmental problems because of the garbage accumulation and all contamination from him. A brief review of the literature on DfE and Lean Manufacturing is displayed showing their concepts, features and applications in support of waste reduction.

**Keywords:** *Design for Environment. Lean Manufacturing. Tools.*

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