

ABSTRACT

INPI House is a creative design industry MSMEs that provides various wooden display models that can be customized to suit business needs, such as restaurants, cafes, and coffee shops. This MSMEs produces several types of displays such as stacking racks, watch stands, and bread display racks. Stacking racks were chosen as the object of research because they have the most defective products compared to other products. During the production period from January 2024 – December 2024, INPI House MSMEs always produces defects every month. The cutting process per shape is the process that produces the most defects. The purpose of this study is to improve the cutting process per shape by conducting an analysis using DMAI (Define, Measure, Analyze, Improve) and designing a proposed tool for the cutting process per shape through the application of the Quality Function Deployment (QFD) method. The results of this study are a design for a 45 degree jig tool for a cutting table machine with dimensions of 30 x 29.3 x 23.8 cm. This tool is equipped with a hold down clamp to secure the workpiece and a handle feature to maintain stability during cutting. The estimated cost for manufacturing this tool is Rp802.000.

Keywords: *QFD, Defect, 45 Degree Jig, Cutting, Cutting Table.*