Review Article

A Review Paper on Fused Deposition Modeling a Part and Process Parameters

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Abstract

The Fused Deposition Modeling is one of the most popular a Manufacturing and technologies for various application in Engineering field. Fdm Process has introduced commercially early strata yes in USA. The Focus of industries have Shifted from traditional Product development in metrology to rapid fabrication technology. The fused deposition modeling is one of the easy manufacturing to directly in cad design by laser Prototyping technology create data. The Process parameter is(FDM)improving to the quality of Part. The fused deposition modeling used to complicated model of machine are easy design in technology.

Keywords: Rapid Prototyping, Rapid Tooling

Introduction

The Fused deposition modelings to the competition in World marketing a Manufacturing the Product provides recant year or present year. The most important work is providing the new product in market recent year. The Future time this rapid prototyping technology used and short time make product cycle. The rapid Prototyping in which make any component to design in auto cad and Solidify with respect to laserbeem in which used material semi plastic fabrication. The Quality a part manufacturing in fdm is affected in various Process methods of Parameter in this Process. The most importation advantage in which using design experiment by Tauguchi's technique for simplicaton or experiment plan and work in different parameter. The Fused deposition modeling in 3DPrinting System at working with laser.

Usla et al.,(2007) The Developed artificial neural network(ann) and Ression model to predict surface roughness in abrasive water jet machine(AWJM).They have decided the machining traverse speed parameter at water pressure and abrasive grift size and abrasive flow rate. That according to time decided the Taguchi's method design to experiment and collect surface roughness. And the time checks the validity of experimental analysis ression model at the end.

Anoop et al.,(2008) That the efficiency of pulsed ND:YAG laser on the laser structuring porous aluminum ceramic.

The laser processing parameter, repetition rate pulse widths are very high scanning speed evaluate.

Dr Charkradhar el al.,(2011)The time to change machining work investigation at the effect a Parameter of optimize Process Parameter according to Taguchi's Standard. After the experiment found best combination of electrolyte concentration at15%, feed 32mm/min and voltage at 20v.

Fused Deposition Modeling Technology (FDM)

The fused Deposition modeling used rapid prototyping most commonly mechanical field. The material any part of Manufacturing and analysis at different filed. Other application area is covered and verification of assembly procedure

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and check kinematical and dynamical properties. Fused deposition modeling used to make complicated design made easy in showing 3d printing. The Nozzle of FDM is very small area.

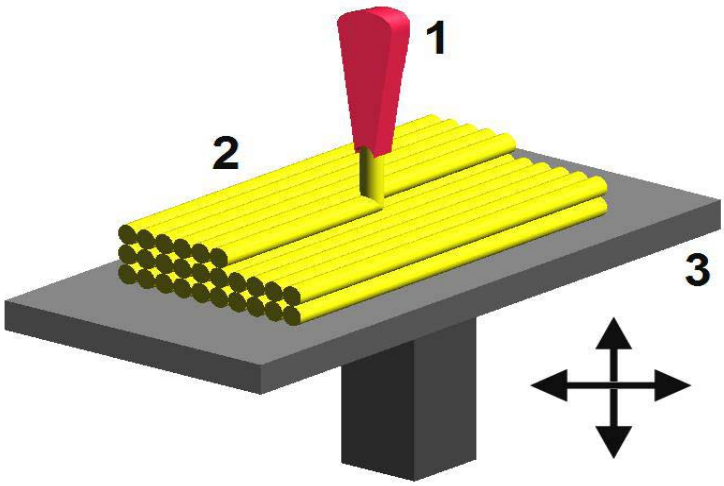

Figure 5.3D Printing Technology

Material used in FDM

The first of all material use to rapid fabrication material for the FDM process. The Create such a component on the FDM using ceramic mixer powder organic of binder at in which machine box. Fused deposition modeling make in easy any type of design at solid by laser. The laser beam is striking on the powder material to be set the laser according to design cad cam and auto cad. The powder Material is reuse without any other operation. In which the laser beam are converted to electric flam into liquid flam drop in nozzle tip.

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