



THE INVESTMENT CASTING PROCESS OF OPTIMIZATION

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ABSTRACT

A process is described for permanently closing internal and surface casting defect, such as shrinkage and hot tears, within high temperature superalloys. The process involves the simulation application of temperature and pressure using a hot-isostatic pressure (HIP) autoclaves. When applied to investment casting the process significantly improves in other structural characteristic are discussed along with potential limitations in the process.

The purpose of this experiment is to provide more effective and quality of product. This is only the experiment we take in action for using a bit little material for maximum cost. We use all equipment machines for using investment casting process. This process is take time to be done.

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CHAPTER I

INTRODUCTION

1.0 Background of experiment

Basically, KJP 365 subject is where student individual or group have to produce a product, write a research, programming for CNC machine or else and experimental using machine equipment in lab faculty as their final project. There fore my group member and I have come out with idea and decide to do experimental using machine equipment for investment casting process. There are many machines to produce product using investment casting. There are many parameter and significant of this experiment. Firstly, study can be applied and gives an early experiment to be an engineer. Further more this experiment a measure for what have a student studies for his or her six semester of diploma.

The experiment can cover all of the machines element and tool of a both type of investment casting to be handling. As we know, many type of casting process where produce small product to used. This product can be use for part of machine element, part of car and some fasteners.

In the UiTM Laboratory Faculty Mechanical have a machine of investment casting. To accomplish this study, my group and I have take time to do an investment process. We just chance the number of dipping to create the thickness of shell. They are many parameters we control and fix it to do this experiment and face a lot of difficulties. Beside that do also search information from several books about foundry and searching website. It took a lot of time to spending ourselves in the library and lab computer rather than gathering information in the lab mechanical. We just follow the manual lab to make the mixture about the viscosity of the zircon flour and silica sand.