

Production Technology During Development of "SAN ACE MC"

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1. Introduction

In recent years, computer processing speeds and performance have increased remarkably. So too has the degree of integration in the heart of the computer, the micro processor (CPU), causing increased heat generation. A compact, high performance cooling device is needed for such CPUs, so "SAN ACE MC" was developed, which is a cooling device directly mounted onto the CPU to cool it.

This paper describes the production technologies used in the design and development stages of "SAN ACE MC", (1) the die casting method of the thin heat sink, (2) the fixed structure of the stator and the frame without adhesion, and (3) the terminal shape that allows automatic soldering.

2. Die Casting Manufacturing Method of Thin Heat Sink

2.1 Background

2.2 Selection of Heat Sink Manufacturing Method

2.3 Start of Die Casting Manufacturing Method

2.4 Application of Technology

3. Fixed Structure of Stator and Frame Without Adhesion

3.1 Background of Development

3.2 Conventional Fixing Method

3.3 New Manufacturing Method

3.4 Effects of Development

4. Terminal Shape Allowing Automatic Soldering

4.1 Background of Development

4.2 Terminal Shape

4.3 Establishment of Manufacturing Method

4.4 Effects of Automatic Soldering

5. Conclusion

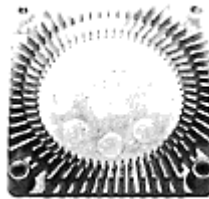


Fig. 3 Die casting finished product