

Aichi Steel Confirms Two-fold Increase in Production Capacity for Heat-dissipating Components for Next-generation Automobiles **—Establishes a two-base production system comprising Gifu and Chita plants—**

Aichi Steel Corporation (Headquarters: Tokai, Japan; CEO: Takahiro Fujioka) confirms it will double its capacity to produce “Power Card Lead Frames,” heat-dissipating components for inverters which are essential for next-generation HVs and EVs. The company also announces it has commenced construction of a new production building at the company’s Gifu Plant (Kakamigahara, Gifu).

With this increase in production capacity, Aichi Steel aims to cater to the rapid increase in demand for eco cars such as HVs and EVs. The lines that will support this increased production will be located in Gifu Plant, as part of the company’s BCP in case of natural disasters such as earthquakes or tsunamis. By establishing a two-base production system comprising Chita and Gifu Plants, Aichi Steel will be able to guarantee supply continuity to its customers.

The power control units of HVs, EVs, and other cars that use electricity as a driving force, contain a Power Card¹ to control electrical power to the motor. The key component of this power card is the Power Card Lead Frame. It is constructed from copper plates whose cross-sectional shape varies in thickness, and which are machined using a high-precision press. Plated with a uniform layer of nickel just a few microns thick in some parts, and plated in gold in others, the power card lead frame is an intricately shaped contact and heat-dissipating component.

In 2007, Aichi Steel commenced production of Power Card Lead Frames for high-quality HVs in the electronic components factory of its Chita Plant (Tokai, Aichi). The company fused precision press technologies, which it had cultivated through its steel business, with functional plating technologies to realize an integrated production process, and in 2015 reinforced its production line at the plant. At present, Aichi Steel’s Power Card Lead Frames are equipped in the latest HV models, PHVs and FCVs.

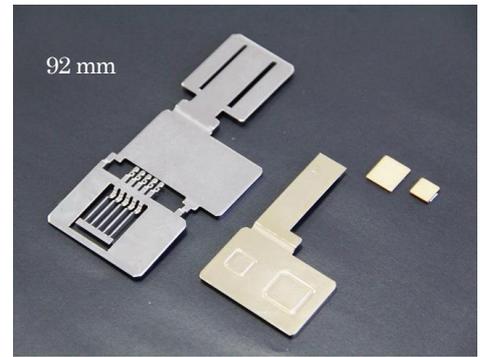
The new production building at Gifu Plant is scheduled for completion in December 2017, and the new production line will aim to commence operations in October 2018.

Going forward, Aichi Steel intends to continue to systematically invest in its electronic components, sensors and magnets businesses, with the aim of responding to expanding markets such as the next-generation automobile and autonomous driving technology markets. By engaging in manufacturing closely with its customers, Aichi Steel will continue to respond to the needs of society in a timely manner.

¹Power Card: a thin, card-shaped power module equipped with multiple power semi-conductors. Each vehicle uses multiple power cards.

Overview of the new production building and new production line

1. Location: Within Aichi Steel Corporation's Gifu Plant
2. Address: 3-36, Unuma, Oigi-cho, Kakamigahara-shi, Gifu prefecture
3. Characteristics: a clean, highly efficient, and people-friendly plant that is free of contamination
Automated lines that adhere to the 4S (simple, slim, short, straight) principle
4. Produced articles: Power Card Lead Frames
5. Production capability: 1.8 million units per month (equivalent to 60,000 vehicles' worth per month)
6. Building area: approx. 4,200 square meters (across two floors)
7. Investment: approx. 3 billion yen (building and facilities)
8. Commencement of operations:
New plant scheduled for completion in ...December 2017
Full-scale operations following establishment of production lines...October 2018



Power card lead frames



Concept image of new production building