

To whom it may concern:

April 24, 2017 Hitachi Metals, Ltd. Hitachi Metals Precision, Ltd.

## **Expansion of Production Capacity** for Precision Casting Turbine Wheels

~To respond to rapidly increasing demand for gasoline turbo engines~

Hitachi Metals Precision, Ltd. (hereinafter, Hitachi Metals Precision) will make a capital investment of over 3.0 billion yen to expand output capacity with 50% for precision casting (investment casting) turbine wheels for automobiles with turbochargers,\* for which demand is expected to rise rapidly in light of fuel-saving needs for automobiles.

## 1. Background

The downsizing concept of combining smaller gasoline engines with turbochargers has attracted worldwide attention as a fuel-saving technology. While turbo engines based on this concept were initially adopted mainly by European manufacturers, their use has now been expanded to the Americas and Japan. Since this technology is superior to a number of other fuel-saving technologies in terms of cost benefits, demand is expected to expand not only in the U.S., Europe and Japan but also in China and other Asian countries in the future. Hitachi Metals Precision's precision casting (investment casting) turbine wheels made of heat resistant super alloys have been widely used as a turbo charger component. While Hitachi Metals Precision has been employing design technologies to respond to market expectations for various shapes and materials in accordance with customer needs—and exercising superior capabilities to meet tight deadlines and quantitative measures based on equipment reinforcement—it is now required to make further enhancements both from qualitative and quantitative perspectives in line with the rapid expansion of demand for turbo engines.

## 2. Overview

In order to respond to such demand, Hitachi Metals Precision will increase its output capacity by 50% from the fiscal 2016 level by fiscal 2020 through the enhancement of production lines and processing equipment as well as the expansion of plant buildings. The total amount of capital investment will be over 3.0 billion yen. Furthermore, Hitachi Metals Precision will strive to achieve higher quality by realizing more precise and complex shapes through process enhancement.

Through this investment, Hitachi Metals Precision will contribute to enhancing the fuel-efficiency and environmental performance of automobiles by pioneering the realization of reinforced output capacity and product capabilities and meeting the needs of customers around the world.

## 3. Details of Investment

- (1) Place: Yasugi Works, Hitachi Metals Precision (Yasugi City, Shimane Prefecture)
- (2) Purpose: Increase output capacity with 50% from the fiscal 2016 level by fiscal 2020
- (3) Investment Amount: Over 3.0 billion yen (plant expansion and reinforcement of production line and processing equipment)



Turbine Wheel



Yasugi Works, Hitachi Metals Precision

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\* Turbocharger: Equipment to drive a turbine using exhaust gas emissions from the engine and to increase the pressure of the fuel/air mixture absorbed by the engine by compressing air intake through the coaxial compressor. A turbocharger contributes to the enhancement of fuel efficiency by increasing engine output while downsizing the engine itself. A turbine wheel is the most important component of a turbocharger and superior heat resistance and creep properties are required for its materials.