

Press Release

February 27th, 2024

DMG MORI achieved 2,000-hour maintenance-free wood biomass gas generation at Iga Campus

DMG MORI CO., LTD. (hereinafter “DMG MORI”) has achieved 2,000 hours of continuous maintenance-free operation of our wood biomass gas generator through close corporation with GLOCK ecotech GmbH (hereinafter “GLOCK ecotech”), wood gasification plant manufacturer in Austria, and TESS Engineering Co., Ltd., engineering company in Yodogawa-ku, Osaka, Japan.

As part of our efforts towards a sustainable society, we installed and started operation of the GLOCK ecotech wood gas combined heat and power plant at Iga Campus, Mie Prefecture, in May 2022. By steaming (gasifying) wood chips, the plant extracts combustible gas and produces electricity and hot water with virtually zero CO₂ footprint. The electricity covers approximately 25% of the power, air conditioning, and lighting needs of our painting plant, which is located next to the biomass power plant. The hot water is used to control the temperature of the cleaning liquid in the painting plant, as well as to dry fuel chips. We are also planning to use the ash from burning wood chips as biochar for our vineyards. Additionally, by collecting thinned woods from the surrounding Iga and Nabari areas for wood chips, we aim to promote the local forestry and landscape.

In general, a wood gas combined heat and power plant requires regular maintenance to prevent chip accumulation and clogging inside the gas generator. Due to the low ash melting point of Japanese woody biomass, this is a particularly common problem in Japan. Previously, we needed to perform gas generator maintenance approximately every 500 hours. To reduce the frequency of maintenance, the three companies have improved the quality of wood chips, added a filter for fine chips, and upgraded the mechanism to remove chips from the existing gas filter through repeated verification and experimentation. As a result, we were able to realize continuous operation of over 2,000 hours, well above the industry standard of 500 hours, and increase the annual plant operation rate from 65% to over 80%.

【Wood gas combined heat and power plant】

- Manufacturer : GLOCK ecotech GmbH(Austria)(www.glock-ecotech.com)
- Rated power output : 18kW
- Rated heat output : 44kW

To realize a sustainable society, DMG MORI will continuously and progressively utilize biomass energy, while actively promoting the use of all renewable energy sources.



Wood gas combined heat and power plant by GLOCK ecotech GmbH



Biomass power plant located next to painting plant