







Fig. , Flow of electric furnace off-gas utilization

passing through the dryer, the gas goes through a bag filter for dust collection, and then the gas is released into the atmosphere through the chimney (Fig. , ).

#### (4) Improving fuel efficiency in the dryer by the use of thermohydraulic analysis

In the SNNC capacity expansion project, we did a thermohydraulic analysis (CFD analysis) based on the

operational data in the first project to improve the homogeneity of the mixture of the electric furnace off-gas and the hot air from the hot-air generator (Fig. ).

We applied the optimal arrangement of the hot-air generator, gas mixing chamber, and ducts based on the CFD analysis result. We tried to improve the efficiency of the rotary dryer by making the gas mixture more homogenous. As a result, we achieved approximately 40%

Fig. Mixture of electric furnace off-gas and hot air from hot-air generator (SNNC Capacity Expansion Project)



### Contact information