

# **PENGEMBANGAN CONTINUOUS FURNACE UNTUK MENDUKUNG PEMBELAJARAN DALAM BIDANG PENGECORAN LOGAM DI FAKULTAS TEKNIK UNY**

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## **ABSTRACT**

The final aim of this study was to assist the execution of aluminum casting or other metals by the combustion mechanism with gas fuel or waste oil material. Therefore, the continuous furnace would be useful with the modification of the process of metal casting with an integrated cast after combustion of the material directly flow through the channel into the molding process. Furnace work was done by making stages: Determine the design of the concept of furnace model, supporting construction / furnace, determining the material was used, making the design, making the furnace and installing the smart burner. Finally, the study reveals that would be produce a continuous furnace for aluminum metal with dimensions of diameter 500 mm, height 670 mm. Furthermore, it was using 6-inch and 2-inch pipe materials as a support frame, stainless steel for furnace cover, and using the castable / refractory cement and the wire mesh for refractory brick making. Obtained heat efficiency was used to melt aluminum by 15.95%.

Kata Kunci: *continuous, furnace, casting*