

SITIPONG NA UBON : DESIGN AND CONSTRUCTION OF MOLDS FOR HIGH EFFICIENCY STOVE MAKING MACHINE. THESIS ADVISOR : ASSO. PROF VITHAYA YONGCHAROEN, Ph.D., 147 pp.

The experiment of parameters for design and construction of molds for high efficiency stove making machine was experimented in this thesis. This machine was operated by hydraulic system instead of existing hand made one. The machine enable the production of the high efficiency stove with greater precision with increased the production rate.

From the experiment it can be found that the force for pressing are around 20-25 kilonewton. When comparess with hand made model the density of stove is increase 13 - 22 percent, compressive strength increased by 11 - 17 percent and shrinkage decreased 7 - 13 percent. The external molds are 3-piece type, with a forming mold made of one piece. The combustion chamber of the stove is machined to meet the standard set by the royal forestry department.