

# **Design of Universal Silindrical Grinding Attachment Module System In Manual Lathe Machine**

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## **ABSTRACT**

The purpose of this study is to: (1) design and develop universal cylindrical grinding attachment machines that can be installed on conventional lathes; (2) knowing the feasibility of the universal cylindrical grinding attachment machine that has been developed.

The research method used is quantitative research using Research and Development (R & D) procedures. The R & D model used is the ADDIE Model. The data source / subject in this study were 2 lecturers in the Grinding Machining course. Data collection techniques use observation techniques and data collection tools using questionnaires and documentation. The data analysis method used is descriptive quantitative.

The results of this study are: (1) The universal cylindrical grinding attachment design on a manual lathe is made by modifying a hand grinding machine, so that its function is increased which is capable of being used for cylindrical internal grinding. The modification in question, namely by making several components / parts, namely: Tapper shaft, Clamping nuts, Slive, Shank, Nut, Bottom holder, Top holder; (2) Based on the assessment / validation data on the feasibility of universal cylindrical grinding attachment machines, it can be seen that the average rating range of all aspects included in the category is very agreeable, so it can be concluded that this machine is feasible to use.

Kata Kunci: *design, universal cylindrical grinding attachment*