

OPTIMALISASI ALIRAN FLUIDA PADA PERMUKAAN BODY PROTOTYPE SKUTER E-GASPOL MENGGUNAKAN SOFTWARE SOLIDWORK 2019

Oleh

Made Widya Sarasta, NIM 1915071016

Program Studi Pendidikan Teknik Mesin

ABSTRAK

Tujuan dari penelitian ini yaitu untuk mengetahui perbandingan CD (*Coefficient Of Drag*) pada desain scooter E-Gaspol standar dengan desain hasil modifikasi. Penelitian ini berjenis Research and Development (R&D), yang berfokus pada proses untuk melakukan suatu pengembangan produk yang sudah ada untuk di lakukan penyempurnaan sehingga dapat menghasilkan suatu produk yang baik dan sempurna. Pada model pengembangan yang di gunakan dalam penelitian ini adalah model pengembangan konseptual R2D2 (Reflective, Recursive, Design and Development) Instrumen yang digunakan yaitu angket ahli isi dan desain persentase dari ahli isi 1 yaitu 100% ahli isi 2 yaitu 100% dan persentase ahli desain 1 yaitu 100% ahli desain 2 yaitu 100%. Setelah dilaksanakan penelitian berdasarkan penilaian ahli desain menyatakan desain modifikasi sangat layak dan berdasarkan hasil perhitungan coefficient of drag diketahui terjadi penurunan tertinggi pada desain modifikasi 2 yaitu sebesar 8,69%.

Kata kunci: *Coefficient Of Drag, Research and Development, (Reflective, Recursive, Design, and Development), Solidwork 2019*

OPTIMISATION OF FLUID FLOW ON THE BODY SURFACE OF PROTOTYPE SCOOTER E-GASPOL USING SOLIDWORK 2019 SOFTWARE

By

Made Widya Sarasta, NIM 1915071016

Mechanical Engineering Education Study Programme

ABSTRACT

The purpose of this research is to determine the comparison of CD (Coefficient Of Drag) on the standard E-Gaspol scooter design with the modified design. This research is a type of Research and Development (R&D), which focuses on the process of developing an existing product to make improvements so that it can produce a good and perfect product. The development model used in this research is the R2D2 (Reflective, Recursive, Design and Development). The instrument used is a questionnaire of content and design experts, the percentage of content experts 1 is 100% content experts 2 is 100% and the percentage of design experts 1 is 100% design experts 2 is 100%. After the research was carried out based on the design expert's assessment, it was stated that the modified design was very feasible and based on the results of the calculation of the coefficient of drag, it was known that there was the highest decrease in the modified design 2, which was 8.69%.

Keywords: *Coefficient Of Drag, Research and Development, (Reflective, Recursive, Design, and Development), Solidwork 2019*