LAPORAN PROJEK TAHUN AKHIR •
KURSIIS DIPLOMA LANJUTAN KEJURUTERAAN JENTERA
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# DESIGN & FABRICATION OF AN ATOMISER FOR THE ATOMISATION OF ENGINE OIL WASTE FOR BURNING

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PREFACE

Effort has been done to improve the designs of atomiser for various applications and to determine the successful techniques for drop size analysis. Main interest arose in taking the project was to make further improvement on the existing designs and hoping that it can be widely use in market.

The ultimate aim of the project is to design an atomiser for the atomisation of engine oil waste for burning* The expected drop size is around 30 microns. Applications can be further expanded for industries and agriculture by changing the liquid of various viscosity, density and surface tension.

There are lack of a suitable atomisation theory, the numerous designs of atomisers available. and the many techniques for drop size analysis, are unreliable' and uncertain which contributed to a state of confusion in this field.

Formulae used for the calculations are basically the mass flow rate equation which was then manipulated with some other equations to find the velocities and areas which can later decide the dimensions of the components.

Aspect of the design, the liquid properties, the ambient atmosphere conditions and the gas to liquid mass ratio, play a major role in the project as they will determine the drop size and its uniformity.

Fabrications for the project need skill work because accuracy is very important so it is in fact advantages taking the project since it involves the usage of many of the machines available in the mechanical workshop.

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