

FINAL YEAR PROJECT REPORT
DIPLOMA IN MECHANICAL ENGINEERING
(MANUFACTURING)
SCHOOL OF ENGINEERING
ITM SHAH ALAM

SME AEROSPACE:
IMPROVING BONDING SHOP PROCESSES

BY :

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1.0 PROJECT BACKGROUND

This final project was completed with the co-operation of the company involved in aircraft manufacturing technology, SME Aerospace Sdn. Bhd.

SME Aerospace Sdn. Bhd. was formed in 1994 under the supervision of Khazanah Holdings. The company are divided into two main section, management and manufacturing section. Royal Malaysian Air Force (RMAF), foreign military, local and overseas companies and personal owners are the main client for SME Aerospace Sdn. Bhd. The main product of this is light aircraft for two passengers model MD-3, the first aircraft that being manufactured by a local company, using local expertise and local resources. In the early stage the company only produced the aircraft chasis, where as the engine had fully imported from overseas. The other products that had been produced by the company are pylon (an equipment to hold missile at fighter aircraft).

The aircraft technology is fully imported from Switzerland and it is still being adapted locally. Many research as and experimentation are still in progress to adapted it to the local environment. The progress is slow due to many problems that must be overcome.

Our work only covered in manufacturing section, specifically at Bonding Shop because of time limitation. There are many weaknesses can be improved which affected the production rate.

Bonding shop is the section that involved in manufacturing aircraft wing. The aircraft wing are assembled by sticking wing elements using special adhesive. Before the elements are adhere, the elements must undergo special process, to achieved a quality product. The process are complex and can cause defective or dissatisfying product. Our project is to identify the possible problems and come out with new ideas and solution to rectify the problems.