

# 유연가공 및 조립시스템에서의 AGV 운용전략

양 대 용

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This paper discusses the methodology for the operational performance of unit-load automated guided vehicles(AGVs) in a flow-shop-type flexible manufacturing and assembly system(FM/AS). Throughout the paper, AGVs are working as a carrier and mobile workstation.

For a double-loop FM/AS, in which one loop is dedicated to machining and the other to assembly, three AGV operating strategies are proposed. Considering the entering interval and travel time of AGVs between workcenters, the strategies are developed to determine the best job sequence which minimizes the makespan and vehicle idle time. Entering times of AGVs and the required minimum number of AGVs are obtained on the basis of the best job sequence. When the number of AGVs are limited, entering times of AGVs are adjusted to maximize the utilization of AGVs.