

蓄冷保溫箱應用於多溫共配系統之最適規格分析

卓裕仁, 黃嘉芬, 陳政君, 林思余

運輸科技與物流管理學系

管理學院

m9203001@chu.edu.tw

摘要

The market growth of refrigerated and frozen products stimulates the development of multi-temperature distribution and transportation system. Several innovated technologies have been proposed to improve the performance of cold logistics. For example, the multi-temperature storage box (MSB), a high-efficiency eutectic vessel, is able to carry products with different temperatures and to reduce the number of delivery trips needed. Due to the lack of research on the usage of MSB, this paper aims to build an analysis theme to design the optimal size of MSB which meets the practical needs of cold logistics carriers. First, we propose four supply-oriented mathematical programming formulations and execute a comprehensive simulation to analyze the cost of the specific size of MSB under different scenarios of products demand. The simulated results indict that the optimal size of MSB solved from the MP models averagely experiences lower cost than other sizes of MSB.

關鍵字：Multi-temperature Distribution, Cold Logistics, Eutectic Storage Box, Optimal Size.