

# **Evaluation of Storage Policies with Production Lot-Sizing Consideration in an AS/RS**

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The performance of storage assignment policies is traditionally evaluated with the storage capacity of an AS/RS taken as given. However, the storage capacity is closely related to the inventory model used in real situations. This paper presents a model of evaluating the performance of three storage policies (random storage, class-based storage, and full turnover-based storage) considering production lot-sizing simultaneously with storage assignment of inventory items. The objective of the model is to achieve a balance of warehouse throughput and space requirements such that a total of material handling cost, production ordering cost, and inventory holding cost is minimized. The effects of the parameters involved in the model are investigated on the performance of each storage policy through example problems.