

**Gehring, H.; Menschner, K.; Meyer, M.**

**A computer-based heuristic for packing pooled shipment containers.** (English) Zbl 0684.90084  
Eur. J. Oper. Res. 44, No. 2, 277-288 (1990).

Summary: Subject of this paper is how to pack rectangular boxes of different size in a shipping container of known dimensions. The problem is to determine positions for placing the boxes in the container such that the inevitable waste of space is minimized. For this three-dimensional cutting-stock problem various suboptimal solutions are generated using the proposed computer-based heuristic. The number of solutions and the most suitable stowage plan are decided by the decision maker. The procedure is illustrated with numerical examples.

**MSC:**

- [90C27](#) Combinatorial optimization
- [65K05](#) Numerical mathematical programming methods
- [90B05](#) Inventory, storage, reservoirs
- [05C70](#) Edge subsets with special properties (factorization, matching, partitioning, covering and packing, etc.)
- [90C90](#) Applications of mathematical programming

Cited in **30** Documents

**Keywords:**

[logistics](#); [packing](#); [transportation](#); [rectangular boxes](#); [container](#); [three- dimensional cutting-stock](#); [heuristic](#)

**Full Text:** [DOI](#)

**References:**

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- [2] Gilmore, P.C.; Gomory, R.E., Multistage cutting-stock problems of two or more dimensions, Operations research, 13, 94-120, (1965) · [Zbl 0128.39601](#)
- [3] Haessler, R.W., and Talbot, F.B., "A computer-based complex heuristic procedure for sizing orders and developing load patterns for low density products", Paper presented on EURO/TIMS-Conference in Paris.

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