

Optimal Lot-Sizing, Quality Improvement And Inspection Errors For Multistage Production Systems

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Summary

We develop multistage lot-sizing models for imperfect production processes. The effect of inspection errors in screening non-conforming items at various stages has been incorporated. Inspection and restoration of the processes at all stages have also been considered. Numerical examples are presented to illustrate various aspects of the models developed. It is shown that when inspection and restoration are introduced, lower costs are incurred and larger lot sizes are produced because of reductions in quality control costs.

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