

The impact of production interruptions on kitting, an analytical study

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I. INTRODUCTION

Efficient transport of materials between stages of a production process is key in the minimization of production costs. The kitting process studied here is an attempt at achieving efficient transport and thus reducing costs. In kitting the necessary parts for assembly are collected into a specific container, a kit, prior to arriving at the assembly line [1]. This is in contrast to a system where parts arrive at the assembly line in containers of equal parts. We analyze the kitting process as a two-buffer queueing model. In such system, the parts arrive at a buffer and wait until they are collected into a kit. Each of the two types of parts are necessary to compose one kit, such that kitting blocks when one of the buffer is empty.

II. METHODOLOGY

A. General Information

The style file has to be selected with a command of the form

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\documentclass[twocolumn]{phdsymp}
```

while the bibliography style file has to be selected with a command of the form

```
\bibliographystyle{phdsymp}
```

The symposium proceedings will not include the author affiliation below or beside the name(s) of the author(s); instead, use the command `\thanks{...}` in the title to mention the name of your department.

B. Additional Changes

Caption of tables should be defined before the table (see Table 1), caption of figures after the figure (see Figure ??).

Table 1. The caption comes before the table.

	title page	odd page
onesided	leftTEXT	leftTEXT
twosided	leftTEXT	rightTEXT

III. SUBMISSION

The paper should be submitted as a pdf file.

IV. CONCLUSIONS

This guideline has been prepared by using the style file `phdsymp.cls`. The template can be used to prepare a paper for submission to the PhD Symposium.

ACKNOWLEDGMENTS

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REFERENCES

- [1] Y.A. Bozer and L.F. McGinnis, *Kitting versus line stocking: A conceptual framework and a descriptive model*, International Journal of Production Economics, 25: 1–19, 1992.