# WORKING PAPER

# A hybrid job shop procedure for a Belgian manufacturing company producing industrial wheels and castors in rubber

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# A hybrid job shop procedure for a Belgian manufacturing company producing industrial wheels and castors in rubber

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**Abstract**

In this paper, a new procedure to solve a job shop scheduling problem at a Belgian manufacturer producing industrial wheels and castors in rubber is presented. The procedure is an extension of a hybrid shifting bottleneck procedure with a tabu search algorithm while incorporating various company specific constraints. The various extensions to cope with the company specific constraints have a strong similarity with the complex job shop problem formulation of Mason et al. (2002). The new procedure is used as a simulation engine to test the relevance of various scenarios in order to improve the current planning approach of the company. A detailed computational experiment highlights the main contribution of the novel procedure for the company.