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Resilience-enhancing Workplace Design - An Approach for Workplaces in the Manual Assembly of large-scaled One-off Products

Florian Beuss^{a,*}, Jan Sender^a, Wilko Fluegge^b

^a*Fraunhofer Institute for Large Structures in Production Engineering IGP, Albert-Einstein-Str.30, 18059 Rostock, Germany*

^b*University of Rostock, Chair of Manufacturing Engineering, Albert-Einstein-Str. 30, 18059 Rostock, Germany*

* Corresponding author. Tel.: +49-381-49682-59; fax: +49-381-49682-12. *E-mail address:* florian.beuss@igp.fraunhofer.de

Abstract

The assembly of products in small quantities up to one-off production requires a high flexibility of the assembly system. Especially for manual processes, workplaces should be economical and at the same time offer a high level of ergonomics for the employee. Existing assembly systems have various adaptation possibilities, which require an active involvement of the user. However, in order to avoid overburdening the employees in dealing with the workplace, a special design is recommended. This paper presents a design approach that is human-centered and at the same time enhances resilience and illustrates it with an industrial case study.

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