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Resource Efficiency and Productivity Optimization of Manufacturing Equipment

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Abstract: Manufacturing companies are facing the task to adapt their existing manufacturing equipment to new challenges. In addition to the traditional objective of increasing equipment productivity, a new focus is the improvement of the resource efficiency situation. This refers to the strongly increasing energy costs. To identify target-oriented optimization measures, manufacturing companies often lack fundamental and objective assessments of the actual situation of their equipment to reveal production and resource efficiency related optimization potentials. This contribution presents a procedure for real data based assessment of manufacturing equipment. Based upon the resulting information of the procedure, productivity ratios and resource consumptions can be determined up to individual equipment components. This creates the required transparency to derive customized production and resource efficiency optimization measures.

Keywords: Resource Efficiency, Productivity, OEE