Analysis and Improvement of Efficiency for Food Processing Assembly Lines

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Abstract : Several factors affect productivity of Food Processing Assembly Lines (FPAL). Engineers and line managers usually do not recognize some of these factors and underutilize their production/assembly lines. In this paper, a special food processing assembly line is studied in detail, and procedures are presented to illustrate how productivity and efficiency of such lines can be increased. The assembly line considered produces ten different types of freshly prepared salads on the same line, which is called mixed model assembly line. Problems causing delays and inefficiencies on the line are identified. Line balancing and related tools are used to increase line efficiency and minimize balance delays. The procedure and the approach utilized in this paper can be useful for the operation managers and industrial engineers dealing with similar assembly lines in food processing industry.

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