EKOLTECH Ltd.

APPLICATION:

The new layout proposal

BRANCH:

Furniture production

SECTOR:

Production and packaging

BENEFIT:

Ekoltech Ltd. would like to change the facilities placement in the production hall for better effectiveness in the production (reducing of handling distances and reducing of buffer-stocks) and for better clear arrangement of parts´ handling and storage.

About the company

EKOLTECH Ltd. is the traditional furniture producer in Slovakia. The company was established in 1998 when it revived the production in ex-production plant Mír and it continued in more than 70 years of tradition of furniture production in Fiľakovo.

The company it a supplier of furniture for the IKEA company.

Project targets

The project target was a proposal of an optimal layout of production facilities and buffer-stock for planned changes of layout with regard to dispread of space and an investment to a renewal of machinery park.

Current state

The company is currently, and in followed two years, concentrated to production of 27 products. Depending on work processes for these products it was proposed a new layout of facility placement.

The production hall is separated to a machinery section, a section of surface coating and a packaging section. In the machinery section there are operations separated to five areas - rough cutting, cutting, milling, drilling and sharpening.

Solution

Due to the data analysis which have been gained from company workers it have been

identified main material flows in first two production phases (machinery processing and surface coating) which have been as the main base for the proposal of individual facility placement. The target was to arrange these facilities to the direct line to prevent oversize handling and to reduce buffer stocks.

The simulation tool Witness 12 (Lanner Group Ltd.) was used in the phase of surface coating to verificate the throughput of this created line and to determine an area size which would be needed for buffer stocky (it was not possible to prove it in the phases of machinery section and packaging section because of not suitable input data).

At the proposal of facility placement in the machinery section it has been used the current handling system (roller conveyors) because of the ergonomy conservation.

Results

The results of the project solution are three variants of facility layout including the evaluation of possible advantages or disadvantages which have been handed over to the company consideration. The introducing of proposed changes brings the considerable time savings, personal savings and espacially financial savings to the company.

This project will bring new findings in a logistic area to the company and it will contribute to the data categorization especially in the area of work processes.