



J. Wagner AG
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INCREASED PRODUCTION, REDUCED COSTS, IMPROVED QUALITY AT J. WAGNER AG

Implementation of Ambitious Specifications Well Underway

To optimize production and logistics, the management of J. Wagner AG in Swiss Altstätten have set up an ambitious project. Together with Ingenics, the main areas of action were defined. Implementation is underway; project completion is planned for the end of 2012.

The Wagner Group is market leader for technologically high-end devices and systems for applying paints, wet and powder coating. For development, production and sales, the internationally operating company relies on first-class quality and future-oriented technology, user friendliness, reliability and efficiency. A global network of sales and trade partners guarantees optimal support and service.

Last year, two main areas of action were defined that are being implemented together with Ingenics:

- Optimization of the work system design in assembly (targets: increasing the value-adding density, imaging the one-piece flow)
- Optimization of production controlling through a switch to the pull-principle with order sequence creation and optimized material staging (target: to reduce rotating stock in production).

In addition to stable, documented processes independent of certain persons, concrete targets included an increase in production efficiency by 30% and improvement of the service level through standardization.

Conditions for efficient project work

First, a status quo analysis was carried out, suggestions for short and medium-term measures were derived and an offer was made for support with implementation. With the project initialization, the frame conditions for efficient project work began to be created. Figures, data and facts were gathered and evaluated, areas of action were defined, specified and prioritized. To develop the potential, method modules were put together, cost and benefit were compared.

The following were analyzed:

- Product- or model mix

- Volume flows and processing times
- Storage stages between the value-added steps
- Changeover processes to other products or components
- Structure plan
- Staff- and system capacities in the various value-added steps
- Value addition shares of the staff in the work systems
- Flexibility of the staff
- Customer, order and call-off behavior
- Production planning and controlling
- Rework rates
- Standards and controls.

In addition to the value stream analysis for selected products, methods included value-added and work structure analysis, space calculation analysis, 5S audit, analysis of the reworking process and the information and communication flow, as well as an employee qualification matrix. With the addition of the value streams, the entire pro-



About J. Wagner AG

Wagner employs approx. 1,300 people, of this 150 at J. Wagner AG, which is responsible as the competence center “Industrial wet- and powder application” for development and production of application and conveying systems for wet and powder lacquers, multi-component mixing systems, controllers, lifting devices, infeed axes and nozzles. Customers include industrial companies, trade companies and DIYers.

duction including the material flows and the layout was captured. The results were analyzed with regard to their reciprocal effects and put together in a presentation; identified areas of action were analyzed, quantified and coordinated in the team. As multipliers, workshop participants took on the task of updating the staff to the required information level.

“Train-the-Trainer” principle

Based on the analysis results, the project plan and a rough planning for the TARGET layout was developed; methodological competence was imparted according to the “Train-the-Trainer principle.” “To successfully impart the lean method on the shop floor, there needs to be very pragmatic ‘practice’ on site,” says Albert Hiller, manager of Supply Chain Management Industrial Solutions at J. Wagner AG. “Then the subject receives the necessary ‘push’. Theoretical seminars are of little help here.”

After accompanying measures tied to change management had been created, an ideal layout could be developed. In the project plan, the measures were prioritized with regard to required investment, effect and implementation duration.

As Module 1, Basic Qualification Lean Production for Managers, the aims and benefits of “lean” were formulated in a workshop in order to bring the participants to the same level of knowledge with regard to the lean philosophy and to jointly determine the areas of action.

As an introduction to Module 2, Work System Design, 5S workshops were carried out. The first visible successes were calculated into

quantifiable benefits (saving of search- and access times, space, pathway etc.). To initiate the requirements for sustainable self-supporting of the method and to secure a CIP, the Ingenics consultant coached internal 5S trainers. As an achievable goal, the pilot series for the product group “Icebreaker” – pneumatic high-pressure piston pumps – was set up and taken into operation. The wastefulness in the current system was shown, areas of action determined, the assembly structure with the number of workplaces in the line and in pre-assembly created, workplaces calculated for cycle time, processes simulated and standard logistics processes and batch sizes were included as input from the sub-project production controlling.

Improvement requires continuity

The aim of Module 3 was production controlling. The supply chain should be aligned in accordance with the line-back strategy following the pull-principle: Based on the specifications of customers and production, the production controlling was to be flexibly structured in such a manner that every production mix can be mapped within defined maximum capacities. The processes were mapped in a flow chart with the development levels production planning, order sequence planning, standard logistics processes, emergency strategies etc. The results were summarized as specifications and coordinated with an IT provider. It was ensured that SAP standard elements and interfaces can be employed.

As Module 4, the realization support and roll-out were defined. “The changeover of the work system is only the first but necessary step,” says Alber Hiller. “The continuous improvement process, the shopfloor management will then raise the full potential.” ■