Reducing inventory and effort with Kanban

CUSTOMER

Hansgrohe SE
D-77761 Schiltach

PROJECT

Integration of suppliers into Kanban system

CASE STUDY

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Content

ANALYZE - SIMULATE - AUTOMATE A QUANTUM LEAP AHEAD	**Abels & Kemmner** brings the optimisation potential of supply chains to light and replaces gut feeling with facts.
Thanks to our **unique consulting approach**, we help companies to achieve sustainable concepts, which we validate and optimise and implement in a secure and agile manner.	**As a pioneer in** logistics simulation and automation in supply chain management, we combine strategic and operational consulting with powerful digital methods.

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Following a conversion of the supply chain to pull processes, Hansgrohe SE, one of the world's leading bathroom and sanitation specialists based in Schiltach, is taking a further step towards optimising the supply chain: supplier integration via Kanban. The changeover initially took place in a clearly defined, manageable pilot area. Organisational tools are being applied as well as the possibilities in SAP.

Hansgrohe's approach was anything but typical: in order to achieve rapid success, the internationally active fittings and shower manufacturer approached the conversion from push to pull processes in parallel for production and raw materials. To convert production, the "global player from the Black Forest" engaged the lean production specialist Leonardo Group (a cooperation partner of Abels & Kemmner), who prepared and implemented the processes in detail on the lines.

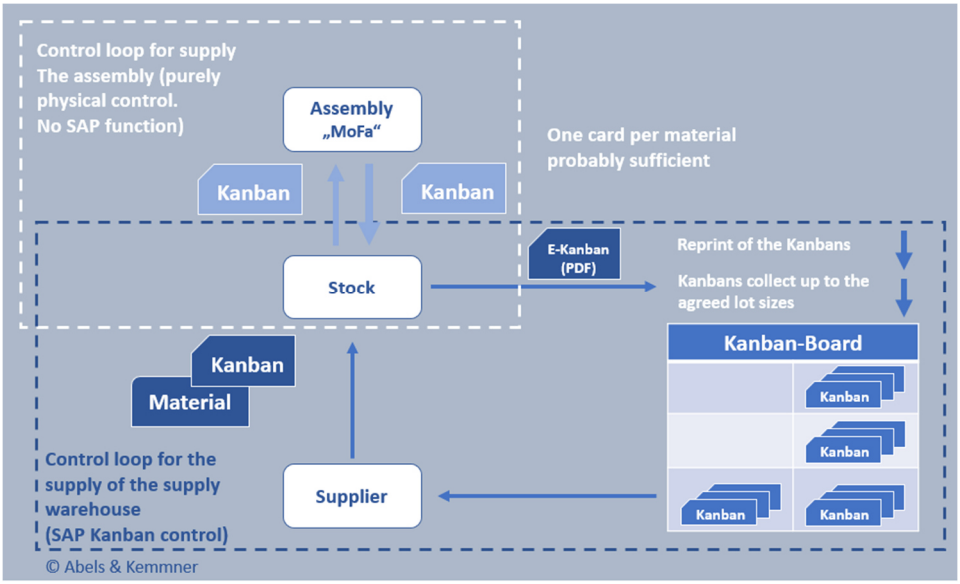

Figure 1: The 2 Kanban control loops

Abels & Kemmner had the task of optimising the purchasing materials. In order to achieve results quickly here as well, the approach was in two stages. First, the disposition of raw materials was changed to the reorder point procedure. This already led to results of e.g. 30% stock reduction and more. In the second step, the raw materials were converted to supplier Kanban.

Two Kanban control loops at Hansgrohe

Due to a lack of floor space in the assembly area, two kanban control loops were set up:

1. internal control loop to supply the assembly with material quantities for one shift
   External control loop to the supplier for replenishment of the supply warehouse.

The integration of the suppliers already started at the beginning of the project: in close coordination, the logistical key figures and parameters that are decisive for the dimensioning of the Kanban control loops were determined. Likewise, the already existing supply agreements were reviewed and adapted with regard to delivery flexibility and securities. The aim was to avoid a break in the supply chain for assembly at all costs.

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One of the most important components of a modern faucet was chosen as the pilot area: the cartridge (also called the "motor"), the heart of every single-lever mixer. If the supply chain breaks down here, large parts of the operation come to a standstill. But it was precisely because Abels & Kemmner had confidence in the new methods to be used and in their experience that this project was tackled consistently.

In the past, the individual part suppliers delivered larger batches at short notice. Today, the cards are automatically sent digitally. This immediately ejects the outgoing goods process at the supplier.

The effect:

In combination with advance planning, the pre-supplier can also plan his production better and does not have to produce and deliver larger batches ad hoc.

The following special framework conditions had to be taken into account in the Kanban pilot area:

- Lack of space in the assembly area where the Kanban parts are installed but only a small part can be stored,
- Quotation of materials (expansion elements, ceramic discs) to two to three suppliers,
- Mapping of the supplier Kanban control cycle in the SAP system with simultaneous long-term forecasting of requirements.

Control loop 1

The first control loop between production and the supply warehouse consists of a simple shuttle card solution. When the material is used up in production, the worker sends the card to the warehouse via a postal route coordinated with all parties involved. In the warehouse, this card is stapled to the next pallet or packaging unit and moved to the designated storage location in production. With this control cycle, a (re-)booking in the SAP system is not necessary. The material withdrawal postings are made retroactively with the addition of the higher-level production order.

Simulation shows Potential from 50% inventory reduction

Control loop 2 and successes

The second control loop for connecting suppliers was more complex in its design and implementation. Here, the flow of goods across company borders had to be booked precisely. This was realised by using the full SAP functionality. Each kanban card of the second control cycle is kept in the SAP kanban board with the current status. The status is set to "empty" or "full" by scanning the barcode on the kanban card in goods issue and goods receipt. When the status is set to "empty", an entry is automatically created in the scheduling agreement in SAP. The kanban card, which signals the need for subsequent delivery, is automatically sent to the vendor as a PDF document by e-mail via message determination in SAP. The supplier only needs to print out the card, attach it to the goods and send it to Hansgrohe. At this point, the supplier had to take precautions to avoid double printing of the kanban cards and thus over-delivery of the material. In the goods receiving department at Hansgrohe AG, the goods receipt booking for the corresponding delivery schedule line is made directly by scanning the kanban card barcode.

The quality inspection in the goods receiving department, which has been common up to now, is now dispensed with. Instead, the quality inspection at the supplier's is relied on, provided that it has been sufficiently proven there in the previous customer-supplier relationship. By applying the credit memo procedure in SAP, the effort of the complete order processing is thus reduced to a minimum. Another effect is the reduction of stocks: The stocks of materials that have been converted to the new procedure have decreased by approx. 40% and this with the best availability.

The simulation carried out by Abels & Kemmner results in an overall reduction potential of well over 50% - congratulations Hansgrohe!

About >>>

Hansgrohe SE, headquartered in Schiltach in the Black Forest, has earned a reputation within the sanitation industry as an innovation leader in technology and design in its more than 100-year history. In 2019, the company generated sales of 1.08 billion euros with its Axor, Hansgrohe, Pharo and Pontos brands. On this basis, the company created new jobs in Germany and abroad in the past year.

Today, the Hansgrohe Group employs more than 4700 people worldwide, two-thirds of them in Germany. The company produces in five German plants, in France, in the Netherlands, in the USA and in China.

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