ValueStreamManager app for ActiveCockpit assists shopfloor management

The app brings together people, products and key figures along the entire value stream and supports the ongoing improvement process.

▶ New app from Bosch Rexroth: digital mapping, design and visualization of value streams
▶ Efficient planning of the material and information flow as well as high transparency
▶ Potentially lower storage costs
▶ Optimum sales planning and use of resources

The ValueStreamManager supports the continuous improvement process by digitally mapping, designing and visualizing value streams. (Image source: Bosch Rexroth AG)

Many production companies would like a modern lean management system in order to plan and implement the value stream in an optimum manner. But with high material stocks, bottlenecks and cycle times, it can be difficult to achieve greater productivity. This can be risky – after all, more and more customers are demanding quick delivery times and great product variance. In addition, companies are looking to use fewer materials, reduce wastage and minimize storage costs. With the introduction of the ValueStreamManagers (VSM) as part of the ActiveCockpit software, Bosch Rexroth offers a digital tool for

Contact for Journalists:
Bosch Rexroth AG
Manuela Kessler
97816 Lohr a. Main
Tel.: +49 9352 18-4145
manuela.kessler@boschrexroth.de

establishing the optimum mix of flexibility and efficiency in production. With the VSM, the lean management method is used to manage continuous improvement processes and make them even more effective. Proven and new approaches are combined and expand the scope of the solution. Because it maps, designs and visualizes value streams digitally, the VSM is aimed at the entire shopfloor management.

With the ValueStreamManager, the interactive, expandable ActiveCockpit software from Bosch Rexroth takes on a new dimension, paving the way to the Factory of the Future for even for production professionals. After all, the application works not only within a production line – it works throughout the production environment. The VSM observes the entire value streams during the production process – from ordering, stock levels and assembly to deliveries to customers. In the VSM, all value-creating and non-value-creating activities are calculated and visualized transparently. The tool gathers data, visualizes the value stream and analyzes it – from the current to the target status. Up-to-date, consistent key figures provide a sound basis for making the right shopfloor management decisions quickly.

Digital support for collaboration

With the app, Bosch Rexroth not only makes shift managers' work easier – it also assists production, value stream and lean managers in their day-to-day work. With the ActiveCockpit, the classic morning walkaround is transformed from a reactive into a proactive production tool. Thanks to paperless value streams and the multi-touch function, optimization activities become visible with just a gesture. In the ValueStreamManager, information is sent straight to the person responsible. This allows decisions to be made and acted upon more quickly. The VSM makes manual processes less susceptible to errors and, in the event of a change of plan, makes it clear what the causes are.

Greater transparency and efficiency in day-to-day operations

Unlike with conventional value stream tools and the classic paper form, bigger value streams can be split into specific, individually defined areas thanks to the VSM's grouping function. As a result, work processes become clearer and more transparent. Particular benefits include the decoupling of

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Manuela Kessler
97816 Lohr a. Main
Tel.: +49 9352 18-4145
manuela.kessler@boschrexroth.de

Bosch Rexroth AG, Corporate Communications, 97816 Lohr a. Main, Germany, www.boschrexroth.com

value streams, the resulting reduction in complexity and the efficient planning of materials and personnel. Delayed deliveries and material wastage in production can therefore be avoided – as can bottlenecks, system breaks and excessive stock levels. As a result, storage costs can be reduced, deliveries can be made on time and sales planning and the use of resources can be optimized. The newly integrated formula calculation system makes the tool even more efficient and reliable: complex formulas no longer need to be calculated by hand – the VSM takes care of them. All employees can access these formulas, as a result of which the same formula is used throughout the plant. The VSM's digital value stream management also reduces the adjustment period and the work involved when developing models.

Optimization thanks to mapping, design and visualization

Designed in accordance with the lean philosophy, the VSM helps to improve the production process. Optimization takes place in three steps:

- ▶ During digital **mapping**, the value stream is recorded live on the shopfloor by an employee using the app. The throughput times are automatically calculated using built-in formulas and displayed.
- ▶ **Design** ensures absolute transparency: Here, possible optimization states can easily be compared, as a result of which the target state can quickly be reached.
- ▶ In the **improvement** tool, Kaizen blitzes can be defined for individual cases in order to analyze faults quickly and come up with effective solutions. The KPIs are shown as bars or radar charts. The library is based on existing symbols of the process, material and information flow. The constant PDCA loop (Plan, Do, Check, Act) ensures that the changes initiated in the various areas of action can be checked at all times, generate added value and help to improve the KPIs.

Installation

The ActiveCockpit software's user-oriented interface allows access to data regardless of location. As a result, everyone involved in the project can work in parallel while on the move. The ValueStreamManager app only needs to be installed once on the ActiveCockpit via the Admin menu. The web-based

app uses browser technology for integration purposes and can be used as a complete cloud service. The VSM's user language is German or English.

Efficient improvement with the ActiveCockpit

ActiveCockpit brings together IT applications such as production planning, the sending of e-mails and quality data management with the software functions of machines and systems. The software can be expanded quickly and easily via additional apps such as the DeviationManager or the LeanIndicator. The focus here is on the processing and visualization of production data in real time as well as the continuous improvement process: Intelligent connectivity saves time when preparing information, and all relevant information is available to everyone involved – in real time and anywhere. Clear analysis tools and measure definition round off the efficient optimization process. Companies and their customers benefit from quicker delivery times, greater efficiency and optimized standards.

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