

SAP Customer Success Story

“We have a win-win situation because our material requirements planning and logistics processes have become more streamlined. Employees working on the production line can control operational business themselves.”

Thomas Schuster, Project Manager, Modine Europe GmbH



AT A GLANCE

Company Name

Modine Europe GmbH
Germany
www.modine.com

Industry

Manufacturing of fuel-cell components

Key Challenge

Reduce safety buffer that tied up capital without jeopardizing delivery reliability

Implementation Partner

SAP® Consulting, part of SAP Customer Services Network

Solution and Services

Kanban solution based on SAP R/3® software (functionality available now in mySAP™ ERP)

Implementation Highlight

Gave suppliers access into material requirements via the Internet

Key Benefits

- Saved €122,000 by using electronic kanban
- Integrated suppliers over the Internet at no extra effort
- Transferred control of manufacturing operations to production-line employees

MODINE EUROPE GmbH

ONLINE ACCESS TO CURRENT MATERIAL REQUIREMENTS VIA A SUPPLIER PORTAL

Founded in the United States in 1916, Modine is one of the leading developers and manufacturers of heat transfer and cooling systems, with revenues of over US\$1.1 billion and 8,500 employees worldwide. As part of its international organization, Modine Europe, with 2,300 employees and 10 locations in Europe, was established in 1990 and greatly expanded with the acquisition of Längerer & Reich GmbH in 1993. Six locations are in Germany, including its European headquarters in Bonlanden, near Stuttgart.

Modine's Pliezhausen facility manufactures components such as radiators and charge-air coolers for the Wackersdorf plant. As a just-in-sequence supplier of cooler components that are ready for assembly, Wackersdorf relies on repetitive manufacturing at Pliezhausen to run smoothly. As Thomas Schuster, project manager in Bonlanden, explains, "Previously, material requirements planning was oriented to customer requirements, which triggered the material requirements on a particular date, allowing for lead times and inventory buffers. Fluctuations in production occasionally led to excess stock."

Modine Europe has introduced an electronic kanban solution based on SAP® R/3® software (functionality available now in mySAP™ ERP) for repetitive manufacturing at its facility in Pliezhausen. Suppliers use the Internet every day to determine the material requirements identified by kanban, enabling Modine to run leaner operations by reducing inventory and operating costs.



LOWER STOCK LEVELS WITH INTERNET KANBAN

The logistics department's aim was to reduce the safety buffer that tied up capital – without jeopardizing delivery reliability. Following a three-month planning and test phase, the first Internet kanban solution went live at the beginning of 2001. “Thanks to kanban, we can match the range of material coverage more closely to manufacturing requirements,” says Schuster.

Modine has succeeded in reducing the range of material coverage down to as little as 20 days, because manufacturing itself now controls the material flow. In a classic kanban procedure, a delivery is triggered when the workstation that requires the material sends a signal card (in Japanese “kanban”) to the supplier. The card contains information about what quantity should be delivered and where. When transformed into an electronic procedure, it enables lean, streamlined logistics processes.

MANUFACTURING SIGNALS MATERIAL REQUIREMENTS

As before, Modine sends the weekly scheduling agreements by electronic data interchange to its suppliers, which are now integrated in the kanban procedure. The scheduling agreements determine the number of steel racks or bins per supplier, with the maximum predefined according to the material. Currently, there are kanban master records for 35 components.

As is typical in a kanban procedure, the kanban master records hold the information contained by the kanban cards – the number of containers, their maximum number, the supplier, and the receiving production line. Modine's suppliers manufacture and procure the semifinished materials as planned, but deliver them only when they are needed.

To indicate that a delivery is required, Modine sets the kanban containers to empty. Data from the kanban board in the SAP manufacturing system is displayed in HTML format on the Internet. Using an address, supplier number, and password specified by Modine, suppliers access these requirements daily

over the Internet. Following confirmation, a supplier's bins are given the status “in transit” in the system. When the goods arrive at the facility, a goods-receipt employee sets the container's status in the SAP solution's kanban board to “full” and the goods are moved into production.

PROJECT WITH RAPID RETURN ON INVESTMENT

“The only technical requirement for our suppliers is Internet access. Electronic kanban has made the process easier for them,” says Schuster. “We have a win-win situation because our material requirements planning and logistics processes have become more streamlined. Employees working on the production line can control operational business themselves.”

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Thomas Schuster, Project Manager, Modine Europe GmbH

The change is visible at the plant. The number of bins in use has been reduced from 302 to 140, representing a savings of €122,000. “Including one SAP consulting day, the project's costs were €20,000. We got a return on our investment a long time ago,” Schuster reports.

Schuster is already considering other projects. “We are thinking about optimizing the goods receipt process using electronic kanban – the first step toward e-business.” The Pliezhausen location is currently examining how to tap the potential of the Internet as a communication channel using role-based supplier and customer portals.