

Spare Parts Management

# Automated Spare and Wear Parts Logistics are Integrated into the Foundry Requirements

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The Tool Server Modular from Bedrunka+Hirth is a fully automatic and modular tool dispensing system for the smooth, convenient provision, organization, and control of tools and small parts for the foundry process.



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Goldin Druckguss, part of the Lehmann Group, operates as much as 13 die casting machines from the Swabian mechanical engineering company Oskar Frech in Minden, Westphalia. Goldin is a specialist in the manufacturing of zinc die-cast and injection-molded parts for the production of cylinder and locking systems. Since December 2017, Bedrunka+Hirth's Tool Server Modular (TSM) has been used there for the inventory management of wear parts and failure-critical spare parts. The computer-controlled output system with electromechanically locked drawers, individualized access control and modern interface

technology is designed to ensure parts and machine availability while at the same time significantly reducing maintenance costs. After a test phase, the companies took stock.

## Consistently Optimised for Industry 4.0

Bedrunka+Hirth's TSM has been rigorously designed to meet the requirements of Industry 4.0.

[<https://www.spotlightmetal.com/machining-centres-are-getting-equipped-for-industry-40-a-752989/>] Managing Director Ludwig Kellner emphasizes that its communication capability is one of the system's special features. The TSM has various interfaces, e.g. to the ERP system, product management and SQL database. There is a variable supplier integration as well as an individually configurable access control, which can be equipped with either usual cylinder locks or e-lock, PIN code or RFID readers, but it can also be integrated into a time recording system.

The system was **“a source of immediate enthusiasm”** for Oskar Frech's customers, says project manager Marcel Dichtler. The mechanical engineering company is continuously improving its worldwide after-sales service in order to ensure maximum machine availability and plant productivity for its customers. During the After Sales Day, an open house day, Oskar Frech regularly presents various services and innovations to customers. Last year, this also included the TSM from Bedrunka+Hirth, which was presented at the Velbert Service Centre.

Armin Oswald, Product Manager TSM in the technical sales department of the company, who works closely with the partners at Oskar Frech and was also there during the

presentation on this day, sees considerable, hitherto unrecognized potential in mechanical engineering. The automation of spare and wear parts logistics at Goldin is regarded as a pilot project. One of the special requirements is that the machine should be as robust as possible and suitable for the harsh environment in a foundry as well as freely configurable and expandable at any time. The modular Bedrunka+Hirth system meets these requirements — as does the high load capacity of the drawers (300 kg), the possibility of co-managing larger parts in a manual warehouse or the color concept which allows for the visual adaptation of the output system to the customer's corporate design.



Anodizing

## Aluminum Anodization - Current and Future Requirements

### User-Friendliness Counters Initial Skepticism

According to Marcel Dichtler, Lehmann's maintenance department was initially skeptical about the "**electronic colleague**", who would in future be responsible not only for stocking and dispensing, but also for reporting the demand for machine parts, but this quickly evaporated when they realized the potential offered by TSM. The machine knows exactly who was handed over the casting piston or heating

cartridge, and to which cost center and repair order it belonged. **"The system maintains order in the warehouse and during withdrawals, reliably ensures the constant availability of spare parts without anyone having to worry about it,"** says Dieter Grannemann, Head of Maintenance, with satisfaction. In addition, the evaluation of used spare parts offers significant potential for optimization, he says.

Grannemann and his colleagues contributed with their own ideas and suggestions to the smooth integration of the system into the everyday foundry requirements in Minden. Marcel Dichtler says that the decisive factor for the rapid acceptance of the TSM was above all its user-friendliness. The system is controlled via the 17-inch touchscreen monitor and software with a Windows interface. **"The simple menu navigation is almost self-explanatory,"** confirms Dieter Grannemann. The system reports when, for example, mandatory fields are not filled in. For a better understanding and for visual relief, Oskar Frech also uploaded drawings and circuit diagrams which show exactly where a part is located in the machine, and how it is to be replaced and connected.  
[<https://www.spotlightmetal.com/one-communication-protocol-for-all-machines-a-674029/>]

## Cost Efficient Maintenance

Not only maintenance benefits from the new TSM output system — **"the positive economic effects are also convincing benefits,"** says Sönke Schlüter, managing partner of the Lehmann Group. The purchasing department is relieved because the requirement message for spare and wear parts are sent directly to Oskar Frech for processing. The exact planning and control of the system, weekly collective shipments and monthly invoices ensure transparency,

efficiency and reduce costs. Assessments carried out by manufacturer Bedrunka+Hirth show that consumption costs can be reduced by 20 to 30 % with automated issuing of goods.

Sönke Schlüter also praises the **"very good project management and introduction of the system by Oskar Frech and Bedrunka+Hirth"**, the cooperative approach, and the openness to ideas and suggestions. Marcel Dichtler sums up the successful implementation of the system in two words: **"Simply uncomplicated"**.

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