

Three building blocks for automated machining



Thanks to its modular design using standard components, the hydrostatic filter HydroPur can be configured to meet specific customer requirements. It impresses with outstanding filtration performance and fineness, as well as an attractive price-performance ratio.



The core elements of automated KNOLL chip management are FTS, which can also be used for other transport tasks.



ControlLube is the system developed by KNOLL for the automatic analysis and dosing of coolants, consisting of a central mixing and control unit (shown in the image) as well as decentralized analysis units.



The ControlLube analysis units installed at the respective filter systems determine the concentration, temperature, pH value, and conductivity of the coolant on site.

The trade fair motto “IT RUNS! FULLY AUTOMATED.” sums it up: KNOLL is not only a specialist in filtration and conveying in the metalworking industry, but also a versatile automation partner for the entire process surrounding the machine tool. Three KNOLL highlights serve as examples at the AMB trade fair stand: the customized filtration technology illustrated by a HydroPur, the completely new, fully automatic KSS analysis and dosing system ControlLube, as well as a KNOLL FTS that can be used not only for automated chip transport.

Any metalworking company that wants to succeed in this country must automate. This can be seen this year at the largest national trade fair, AMB, at almost every stand in every hall. Automation is also the number one topic at KNOLL Maschinenbau. At the trade fair stand in Hall 8, 8C40, the Bad Saulgau-based company demonstrates how coolant lubricant (KSS) and chip management can be brought up to the latest state of the art.

Nothing works without clean coolant lubricant

At the center of the trade fair stand is a hydrostatic filter HydroPur 250, representing the diverse KNOLL KSS filter portfolio that supplies cutting machine tools with cleaned coolant (emulsion or oil) according to requirements. The HydroPur filter is available in the 250 / 400 / 700 / 1000 variants, cor-

responding to the different maximum filtration capacities. The different filter sizes come with options regarding tank size, vacuum support, continuous fabric (instead of filter fleece), magnetic roller, and winding unit. Thanks to its modular design based on standard components, a customer-specific filter can be configured that delivers outstanding filtration performance and filtration fineness, while also offering an attractive price-to-performance ratio.

Process reliability through consistent coolant quality

At the KNOLL trade fair stand, the HydroPur also serves as a practical example of the use of ControlLube, the newly developed system for the automatic analysis and dosing of coolants. ControlLube consists of a central mixing and control unit as well as decentralized analysis units at the respective filter systems. They continuously take samples from the filter's clean tank and analyse relevant coolant/lubricant parameters on site, such as concentration, temperature, pH value, and conductivity. The measurement data are transmitted to the central mixing and control unit. If there are deviations from the preset target values, it automatically prepares the required emulsion from water and concentrate and doses it as needed.

This keeps the coolant quality consistently stable – an

important contribution to process reliability, tool life, and machining quality. At the same time, the manual effort required for monitoring and documentation is almost completely eliminated.

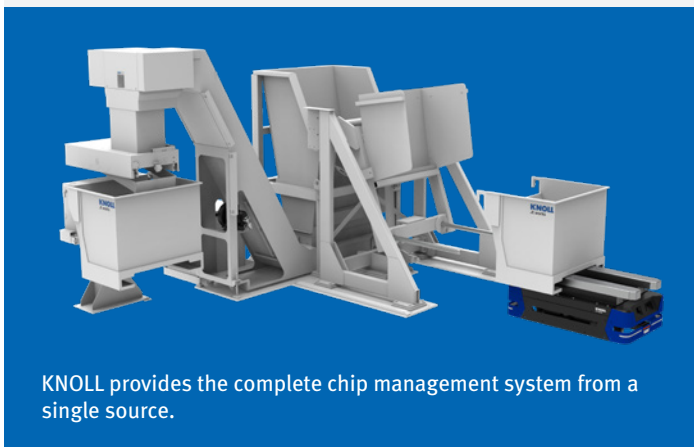
Driverless transport systems automate material flow / chip transport

In addition to media supply, KNOLL is also focusing on the material flow around the machine tool at AMB. The company demonstrates live how chip transport can be automated using a driverless transport system (FTS). For this purpose, a chip conveyor is set up that continuously transports chips into a collection container. As soon as a defined fill level is reached, a transport order is automatically generated. The FTS brings an empty container to the machine, swaps it with the full container using the so-called double-pick method, and transports it for emptying. The changeover time is around one minute, during which the machine tool can continue operating.

KNOLL provides all components and the entire process from a single source. How well thought out the system is, is demonstrated by one detail: to prevent any coolant or oil from dripping from the conveyor onto the floor during the chip container change, KNOLL developed a mechanical drip protection.

Another advantage is the independence of the FTS-supported chip disposal system developed by KNOLL. The system can be connected to machine tools from various manufacturers, enabling seamless automation across the entire machine fleet.

Another advantage: the FTS used for chip disposal can also transport raw parts, workpieces, pallets, or material carriers and link different machining stations together. KNOLL already implements applications today in which components are transported autonomously between machine tools, robot cells, transfer stations, and downstream process steps.



KNOLL provides the complete chip management system from a single source.

myKNOLL – the digital access to information, services, and the shop

Last but not least: just in time for the trade fair, KNOLL is launching its new customer portal myKNOLL. This gives all customers a personal digital access to their systems, documentation, as well as service and shop functions around the clock. The platform combines transparency, efficiency, and user-friendliness and makes key processes accessible from anywhere. Visitors can try this out at a terminal and register directly.

You will find KNOLL Maschinenbau at AMB 2026 in Hall 8, Booth 8C40. Anyone who cannot wait until the trade fair or is tied up with business can look around on the homepage www.knoll-mb.de and call up a great deal of detailed information there.



KNOLL Maschinenbau GmbH

KNOLL Maschinenbau is the leading provider of conveyor systems, filtration systems, and pumps for the metalworking industry. Its products transport and separate chips and cooling lubricants. The Automation business unit specializes in solutions for demanding assembly and logistics tasks. The extensive product portfolio offers systems for both decentralized and centralized applications. Since 1970, KNOLL has stood for innovation, progress, and growth.

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