

Building blocks for success

Open and in colourful diversity - this is how KNOLL Maschinenbau GmbH, Bad Saulgau, is presenting its latest products at **EMO 2023 in Hall 6, Booth F31**. Numerous exhibits from the areas of conveying, filtering, pumping and automation show how KNOLL products can increase productivity in metalworking.



Cost-effective and environmentally friendly is the **superfine filtration with the MicroPur® filter**, which is designed to remove residue from grinding operations - whether carbide, HSS or cast iron particles - from the cooling lubricant. This filter achieves grades of filtration on the order of 1 µm to 3 µm and, thanks to its special design, does not require any filter consumables, which contributes significantly to its high economic efficiency.

On display at EMO 2023 in Hanover will be the MicroPur® filter, which contains two backflushable filter bowls for around 240 litres of filter capacity. Thanks to their modular design, MicroPur® filters are suitable for single machines as well as for stand-alone solutions and large central systems, where the respective filter capacity can be scaled as required in modular steps of 480 l/min.

More productive through high-pressure supply

Among the highlights of the KNOLL exhibits are the **LubiCool® high-pressure units**, which are suitable both for origi-

nal equipment as well as for retrofitting to existing machine tools. They provide the cooling lubricant under high pressure at up to 150 bar. A component of each LubiCool® unit is also a filter that provides the necessary high-quality cleaning of the medium (emulsion or oil).

On show in Hanover is the LubiCool®-S variant, a small, low-cost HP unit with a simple, effective filtration principle, ideal for short and Swiss-type automatic lathes where space is at a premium, since it even fits under a bar feeder. Also on display at the booth is the LubiCool®-M, a high-performance HP system that uses a high-quality, automated filtration principle.

Save time thanks to automated chip removal

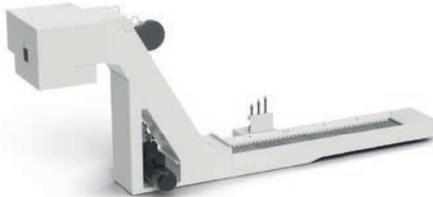
Wherever machining takes place, chip removal is also an issue. Of its many solutions in this regard, KNOLL presents the **P-40 slat band conveyor**, which is suitable for transporting metal chips and small parts. It can be used both decentralised on single and linked machine tools as well as centralised for chip removal from machine groups and complete production areas. The slat band conveyor is extremely versatile. It dependably



KTS



High pressure unit LubiCool®



Conveyor P



MicroPur® filtration system

removes both wet and dry chips, even if they are particularly long, in the form of balls or wool chips.

In addition, KNOLL shows how chip removal can be automated: Using a **reducer** on a slat band conveyor, the chips are cut and then transported in a **chip cart** on an automated guided vehicle (AGV) to the disposal location. This is a set-up that is particularly efficient for unmanned shifts.

From 0 to 100 bar in just 0.3 seconds

KNOLL pumps have already proven themselves hundreds of thousands of times over. Customers appreciate not only the reliability, long service life and ease of servicing, but also the quick availability of these products. The **KTS screw pump**, for example, has been a successful product for over 30 years and is always available from stock.

The KTS is primarily used on machine tools, which it supplies with cooling lubricant at 100 bar in just 0.3 seconds. The KTS features innovative technology, excellent durability and high resistance to wear.

KNOLL also has a cutting-edge product for dry machining in its portfolio in the form of the **AerosolMaster™ 4000 ATS**. It is based on aerosol dry lubrication (ATS), in which the finest lubrication particles are fed directly to the cutting edge of the tool. In this way, the system prevents heat build-up in the machining contact zone. Against this backdrop of low lubricant consumption, supply and disposal costs are reduced to almost zero. And in terms of energy efficiency, the AerosolMaster™ systems show great potential: Energy consumption per machine is up to 60 percent lower compared to centralised cooling lubricant systems.



KNOLL Maschinenbau GmbH

KNOLL is the leading provider of conveyor systems, filter systems and pumps for metalworking. These systems transport and separate chips and cooling lubricants. The comprehensive product range offers systems for decentralised or centralised applications. Its Automation Division deals with solutions for challenging assembly and logistics tasks. These include stationary transport systems with chain and roller conveyors. The integration of handling units (robots, cobots) and transport robots (AGVs) enables flexible systems to be created from a single source.

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