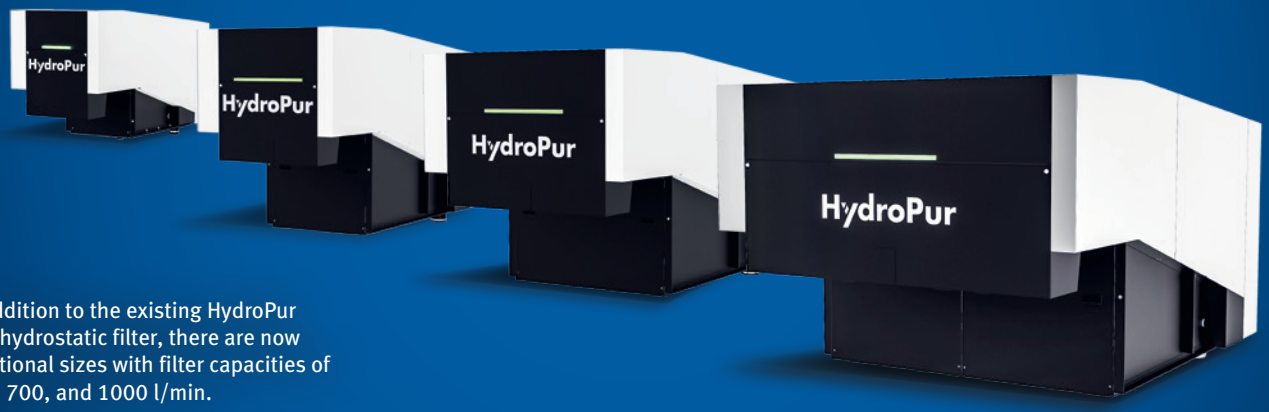
KNOLLINFO

Hydrostatic filter HydroPur

KNOLL expands the HydroPur range to meet a wide range of requirements

A new addition to the family



In addition to the existing HydroPur 400 hydrostatic filter, there are now additional sizes with filter capacities of 250, 700, and 1000 l/min.

The modular HydroPur filter system, which KNOLL Maschinenbau first presented four years ago, impresses with its outstanding filter performance and filter fineness as well as its attractive price-performance ratio. In order to expand the range of applications for the hydrostatic filter, KNOLL has developed the previous HydroPur 400 model into an entire family, which now comprises four filter sizes and offers additional options. The expanded range also includes special systems based on the four HydroPur filter heads.

The KNOLL HydroPur is a hydrostatic filter that, when integrated into a system with a tank, pumps, etc., supplies metal-cutting machine tools with purified cooling lubricant (KSS). The filter has a fleece or endless belt which, in combination with the hydrostatic pressure, very effectively separates liquid and chips – with many advantages over simple filters. Due to their high filter fineness, hydrostatic filters are particularly suitable for use in grinding processes. However, they also enable the problem-free discharge of other types of chips, even light metals.

In contrast to the HL hydrostatic filter, which has been part of the KNOLL range for some time, all the HydroPur filter systems have a modular design. This allows customers to configure a product that is tailored to their needs from various standardised function modules – without unnecessary functions and costs.

Advantages of the HydroPur family

- Four different filter sizes
- Large selection of standardised function modules
- Configurable according to customer-specific requirements using modular construction sets
- Special designs possible
- High degree of purity with low fleece consumption
- Flexible use with different chip sizes and materials
- Combination of vacuum and filter fleece or endless belt reduces operating costs

Additional variants increase application flexibility

KNOLL offers the new HydroPur 250/400/700/1000 variants with different maximum filter capacities. In addition, the respective HydroPur filter modules are now “detached” from the tank system so that they can also be used with containers in special sizes – locally for a single machine tool as well as in central cooling lubricant systems.

The different filter sizes now also come with options regarding tank size and the electrical and control technology used. KNOLL is sticking to the modular design of the HydroPur units for good reasons. Jannik Nörz, product manager for HydroPur, explains: “The modular principle with standard components suits every customer that does not require a special design. Customers benefit from standardisation and high availability. By configuring

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Each KNOLL HydroPur filter system can be configured to meet specific requirements thanks to its modular design.

instead of designing, we can deliver products quickly and also offer a very attractive price-performance ratio."

From the basic model to the high-end system

The basic equipment for every HydroPur system includes a HydroPur hydrostatic filter and a clean tank, the filter fleece or endless belt, various supply pumps, sensors, and the control system. The new HydroPur can also be equipped with vacuum support. And upon request, KNOLL can integrate a winding unit into the system, which, among other things, separates the dirt discharge from the used filter fleece, thus contributing to more cost-effective disposal. Other optional extras include a magnetic roller for pre-separation, a cover with an LED status light, a plate heat exchanger, a duplex filter, belt skimmer, immersion cooler, and a control cabinet, as well as a safety collecting tray. Most standardised function modules can also be retrofitted.

Vacuum option increases performance

Particularly noteworthy is the vacuum support provided by side channel compressors, which KNOLL previously only offered with the HL filter. The vacuum increases the cooling lubricant throughput and allows a homogeneous filter cake to build up more quickly, removing even the finest particles. The user benefits from cleaner cooling lubricant, which has a positive effect on workpiece quality and tool service life, among other things. A drying section ensures that the sludge is discharged in a drier state than with flatbed filters, for example. This reduces disposal costs and cooling lubricant loss.

In addition, the vacuum support reduces filter fleece consumption. Fleece consumption drops to zero when the optionally available endless belt with fabric cleaning is selected. This results in further reduced operating and disposal costs.

"When fully equipped, the new HydroPur achieves a level of performance that meets even the highest machining requirements," says Jannik Nörz. "However, for those who find that a HydroPur modular system does not meet all their requirements, we also offer special systems that can be completely customised to the customer's specifications."

KNOLL Maschinenbau GmbH

KNOLL Maschinenbau is one of the leading suppliers of conveyor and filter systems for chips and cooling lubricants in metal processing. Highly flexible transport systems supplement KNOLL's product range. With its comprehensive range of products, KNOLL develops complete systems and system solutions with centralised or decentralised functions. Since 1970, KNOLL has stood for innovation, progress and growth.

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