

# COOLANT FILTRATION

Filtration systems for cooling lubricants



**Van der Ende Group offers a wide range of filtration solutions for filtering solids from liquids, such as chips from cooling lubricant (KSM) and for separating liquids, such as with foreign oil from KSM. Other applications for which we have the right solution are filtering fine contamination resulting from carbide machining, purifying tap water or cleaning wash water. As a rule, the cleaner the fluid, the longer the service life.**

#### **Belt filters**

A compact belt filter is designed to filter chips from the cooling lubricant. Based on the capacity of the pumps and the type of cooling lubricant, the capacity of the belt filter is selected. The material and shape of the chips determine which type of siphon pump and filter cloth is desired. Van der Ende Group largely designs and manufactures the compact belt filter itself, only the upper part is sourced from Reber Systematic GmbH (RESY). The clean liquid reservoir is designed to accommodate all desired pumps, level sensors, a belt skimmer and possibly a cooler. The belt filter system is installed so that the fluid in the machine reservoir is always moving, which is essential against bacterial growth.



#### **Filter paper**

Van der Ende Group has a wide range of filter cloth varying in types and sizes. The types differ in material, production method, density and thickness, resulting in permeability. The rolls of filter cloth are available in any width from 30 to 200 centimeters and the standard lengths are 80, 100, 250 or 500 meters. The length is often limited by the maximum permissible roll diameter. Filter accuracy ranges from 15 to 200 microns.

Selection of filter cloth depends on belt filter type, type of processing, processed material and cooling lubricant (emulsion/oil). A general classification is by belt filter type and size of chips, being fine, medium and coarse.

#### **Cyclone filter**

In a cyclone filter, liquid is introduced under about 2 bar. Due to the centrifugal force, the solids separate on the outside of the cyclone, where the liquid collects in the middle. Due to the special shape of the cyclone, the contamination sinks to the bottom. At the top of the cyclone, the clean liquid is discharged.



### Industrial centrifuges

Centrifuges are very compact filter units that guarantee optimum cleaning of various liquids under practically all conditions. The filtration accuracy is constant and is not affected by particle shape or stickiness.

Industrial centrifuges operate on the basis of centrifugal force and do not use filter aids such as filter fleece.

### Mahle filters

For high-pressure cooling systems, police filters are necessary to prevent clogging in the high-pressure ducts. Van der Ende Group recommends and supplies the high-quality Mahle filters for such applications.

### Mobile swarf vacuum

The Freddy mobile fluid, filtration and vacuum systems are used to quickly and thoroughly remove chips and fluid from machine tool tanks. At the same time, the cooling lubricant is filtered.

Using the Freddy, also known as swarf vacuum, for machine tool maintenance and cleaning the cooling lubricant not only ensures more consistent production and product quality, but also maintains the quality of the cooling lubricant.

**Van der Ende Group: your partner for solutions in your production process. Our specialists provide no-obligation advice on your specific issues. In addition, our service technicians are at your service 24/7.**



## Improving Your Business

Van der Ende Group is an innovator, manufacturer and supplier of technical solutions in the area of climate, water, fluid technology and filtration technology. We produce and supply a wide range of pumps, water treatment systems, frequency converters, accessories, fans and industrial filter systems. We provide specialist advice and technical services for horticulture, construction, industry and the public and semi-public sector. Our many innovative and often patented products are sold worldwide. **Check our website for more product information.**



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