

Fluids for the inside lubrication

For the application in the inside lubrication in machining, the HPM Breeze- procedure is used more and more frequently. HPM-Breeze is a developed lubrication procedure from HPM Technologie and other well-known co-operation partners such as FANUC, Schunk, Mitsubishi, Blaser and others. With this procedure the classical quantity lubrication is no longer necessary and is also superior to common MQL/MQCL-technologies. HPM Breeze enables the ideal lubricating efficiency even with tools with the smallest channel diameters. Expensive disposal of swarf and recycling of liquids have no importance anymore. Best results will be achieved using the HPM-Breeze-procedure with components particularly adjusted to the production process.



Especially in the machining process where they work with the HPM-Breeze procedure, they have been developed a selection of fluids with the Vascomill HPM Breeze products, their technical advantages can be used in the best possible way. Including for example

Vascomill HPM Breeze FA 2

Vascomill HPM Breeze FA 2 is a product free from mineral oil and chlorine based on fatty alcohol. Due to the molecules' polar structure, the fluid has a very efficient lubrication. It is suitable for the general machining in the HPM Breeze-procedure, especially for aluminium, aluminium alloys, ferrous materials, steel, titanium and non-ferrous metals. Even without a first part cleaning, the fluid can also be used for parts that will subsequently be thermally treated.

For your application of the HPM Breeze-procedure or further adequate fluids from the Vascomill HPM Breeze product line, we will be pleased to present you an individual solution for your requests. If you have further questions please ask us.

HPM Technologie GmbH

For 60 years now, the name of the HPM Technologie has stood all over the world for the construction of highly modern plant in the area of minimum quantity spray application, trickling application and cleaning technique. Many of the HPM products offered for the inside and outside lubrication have always been and continue to be leading when it comes to efficient and environment friendly solutions in all areas in which optimal results are to be reached with the smallest fluid quantities. Permanent development and consequent research pave the way for modern applications and process technologies, including the recent HPM Breeze-procedure. Thanks to a modular set-up, all spray products of HPM Technologie can be adapted individually to any task.

Convince yourself: www.hpmsysteme.de



HPM Technologie GmbH

HPM Fluids

For every use the right liquid.



HPM Technologie GmbH

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HPM Technologie GmbH

Rudolf-Diesel-Straße 3 • 72525 Münsingen • Fon: +49 7381 9344-33 • Fax: +49 7381 9344-88
E-Mail: info@hpmsysteme.de • Internet: www.hpmsysteme.de

| SURVOS and SENTOS – used world-wide

HPM Technologie Minimum quantity fluids have been used for 30 years with excellent results in different areas. The fluids SURVOS and SENTOS from HPM Technologie prove themselves particularly in metal working and metal processing.

- as lubricants and drawing compounds for stamping and deep-drawing
- in assembly equipment and for machine cutting
- in cutting and perforating sheet metal (aluminium, steel, copper, brass, galvanised or tin-plated, transformer and electrical sheet steel, painted or coated sheet metal)
- in cold forming
- in bending and embossing
- as a cooling lubricant for sawing, drilling, milling and engraving
- as a slip additive for cutting non-metallic materials
- for the manufacturing of food packaging

In order to use the positive attributes of SURVOS and SENTOS optimally a very fine film should be applied (e.g. using a HPM Technologie micro spray device). Less recommendable is the process over felt-covered couch rolls, brushes and rolls. During this process, too much liquid escapes and get lost.

SURVOS and SENTOS are available in sizes of 200 litres, 25 litres and 10 litres.



| SURVOS and SENTOS – Fluids in best shape.

The SURVOS and SENTOS fluids are based on ultrapure hydrocarbons. To maintain consistently high quality, the production process is proofed by laboratory services. To fill the standard sizes of 10 l, 25 l or 200 l, only brand-new canisters or barrels are used.



SURVOS Standard has a high lubricating capacity and is used for virtually all applications, particularly for sheet metal forming, metal cutting and assembly technology. SURVOS Standard evaporates from the tool without leaving any residue behind; even when the parts are lying flat against each other or are packed.



SURVOS RAPID D has a lower lubricating capacity but convinces by short evaporating time and evaporates without leaving any residue behind. Therefore it will be especially used in areas with a rapid sequence of production cycles, where residues must be avoided. For example at varnishing, coating, bonding, soldering, etc..



SURVOS PLUS L has a very high lubricating capacity and evaporates rapidly without leaving residues. Recommended areas for its application is the deformation of strips and tapes of metal and also for the production of objects that come in contact with food and for that SURVOS PLUS L is expressly allowed by the strict FDA US regulations.



SENTOS V-LR3 fulfils all requirements to the highest lubricating capacity and short evaporation grades. The use of it, especially when drilling (drilling depth > tool diameter) and tapping as well as for all inner workings. There remains a no visible and tangible 3% residue. SENTOS V-LR3 is also used for extreme deformation and also fulfils the strict legal requirements of the FDA US regulations for products used in the Food Industry.

| HPM fluids – safety at any time

All SURVOS and SENTOS fluids consist of ultrapure hydrocarbons, glycol ether and synthetic ester. Depending on type they contain aliphates, isoparaffins, cycloparaffin, hydrogenated naphta, naphta treated with hydrogen, glycoether, synthetic esters and de-aromatised hydrocarbons. Dangerous and unhealthy substances such as silicone, nitrite, sulphur compounds, phosphor compounds, surfactants, emulsifiers, nitrosamine, chlor hydrocarbons, amines, amides, PCB and PCT won't be used. Aromates (less than 0.05% by weight), water, evaporation residues (less than 0.001% by weight) are only present in traces at best.

The SURVOS and SENTOS fluids aren't corrosive, belong to Water Pollution Class 1 and have a low TLV (Threshold Limit Value) of 20-200 ppm. They don't cause coke residues or leave any hard films or crusts on tools. They have practically no reaction with other substances and do not age at high temperatures.

SURVOS and SENTOS products correspond to the latest state-of-the-art technology regarding their chemical composition, toxicity, environmental pollution as well as fluid handling, whereby in each case the highest standards of quality are applied. The actual safety data sheets can be viewed or downloaded on www.hpmmtechnologie.de.

| REACH

With the regulation (EG) No. 1907/2006 of the EUROPEAN PARLIAMENT AND COUNCIL, the so called REACH-regulation entered into force. REACH signify registration, evaluation, authorisation and restriction of chemicals. The Regulation aims at making certain that all chemical substances which are released into circulation with quantities exceeding 1 metric ton per year will be checked for perils and risks for humans and the environment. After the so called pre-registration phase, during which all substances in use must be registered, comes the final registration process as defined in the directive.

All of the notifiable chemical substances offered by HPM Technologie and contained liquids listed in this brochure have been registered with the aim of final registration within the time period required for pre-registration. They can therefore continue to be sold or used without restriction.