

SulFol and SintoCut

Cutting oil





Philipp and Martin Storr • Managing Directors

Your strong partner for cutting oils

oelheld is a medium-sized company, which has more than 130 years of tradition and experience. Since the foundation in 1887 by Carl Christian Held, oelheld has become an established specialist for lubricants. Partnerships, research, and human resources technology have grown as a valuable tradition of which we are proud of.

Numerous customers and machine manufacturers along with national and international universities have partnered with us to develop high quality lubricants. Through this cooperation we are able to focus intensively on meeting and adjusting to specific requirements on a wide range of different manufacturing processes. Our laboratories are equipped with state-of-the-art analytical equipment and numerous application testing systems that guarantee today's demanding requirements, and many of tomorrow's ever changing new standards.

“Innovative product development, strengthened by continuous quality control and comprehensive customer service, is the key to the success of our products.”



Human Technology

Innovations for man, environment and machines

Hutec is our main focus in the development and production of our products. It is also our mission statement in our use of resources and at oelheld always presence.

What does this mean?

- REACH requirements are fulfilled
- Skin reviews and approvals available for most products
- Low emission and aromatics free / low aromatic products
- Products free of heavy metal
- State-of-the-art production facilities
- Environmentally friendly production processes
- Products are tested for compatibility with machine components
- Sustainability in the selection of raw materials
- Environmentally friendly and resource-saving products





Structure of cutting oils

Cutting oils basically consist of a base oils and additives. Just like in a good kitchen, oelheld only uses the best ingredients. Over 130 years of tradition in the production of metalworking oils guarantees you the highest performance for your cutting process.

Basic oils

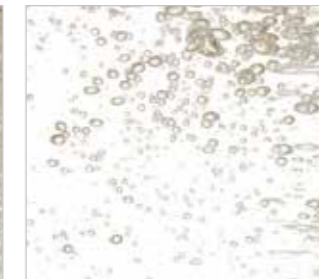
Hydrocrack, gas-to-liquid (GTL) and polyalphaolefins are available, which are characterized by good air separation properties and low foaming. All base oils used are colorless, odorless, dermatologically tested and very low-fogging.



mineral oil
air release: 60 seconds



hydrocrack (HC)
air release: 29 seconds



gas-to-liquid (GTL)
air release: 15 seconds



polyalphaolefin (PAO)
air release: 12 seconds

Additives

oelheld develops and manufactures special cutting oils for different applications and different materials. In addition to high-quality base oils, the selection of the right additives plays a decisive role. However, it is not only the selection of the right additives that is decisive, but also their combination with each other. Only optimally combined and coordinated additives can have a positive effect on the cutting process.

Cutting oils from oelheld for every process

The cutting oils specially developed by oelheld, the SulFol series, offer an optimum solution for all applications in the field of machining with geometrically defined cutting edges and are at the cutting edge of cutting oil technology thanks to their special additives.

With these products, oelheld naturally remains true to its brand concept "Human Technology for Man, Nature and Machine". This is why all oils in the SulFol range are chlorine-free, virtually aromatic-free and low in oil mist. The products are characterized in particular by good cooling, wetting and lubricating effects, which leads to a considerable improvement in surface quality and tool life. Due to the special high-performance additives, all oils in the SulFol range have particularly good resistance to ageing and allow a wide range of applications.

The cutting oils in the SulFol range have been divided into different additive groups, each with 4 - 5 viscosity classes, for a wide variety of machining forms and materials.

Product overview

Cutting oils

Product name	Density at 15°C (g/cm³)	Flash point (°C)	Kin. visc. 40°C (mm²/s)	Materials	Application
SulFol LCD 500	0,82	>120	5	Steel, non-ferrous, cast material, aluminium and magnesium alloys	Drilling, turning, milling, thread grinding and hobbing
SulFol LCD 850	0,84	>150	9	Steel, non-ferrous, cast material, aluminium and magnesium alloys	Drilling, turning, milling, thread grinding and hobbing
SulFol LCD 1500	0,84	>160	15	Steel, non-ferrous, cast material, aluminium and magnesium alloys	Drilling, turning, milling, thread grinding and hobbing
SulFol LCD 2200	0,84	>180	22	Steel, non-ferrous, cast material, aluminium and magnesium alloys	Drilling, turning, milling, thread grinding and hobbing
SulFol LCD 3200	0,88	>180	32	Steel, non-ferrous, cast material, aluminium and magnesium alloys	Drilling, turning, milling, thread grinding and hobbing
SulFol LCO 500	0,83	>120	5,6	Nitrided steel, non-alloy and alloyed heat-treated steel, tool steel and high alloy steel	Drilling, turning, milling, Honing, punching, broaching and deep drilling
SulFol LCO 1000	0,85	>155	10	Nitrided steel, non-alloy and alloyed heat-treated steel, tool steel and high alloy steel	Drilling, turning, milling, Honing, punching, broaching and deep drilling
SulFol LCO 1500	0,87	>160	15	Nitrided steel, non-alloy and alloyed heat-treated steel, tool steel and high alloy steel	Drilling, turning, milling, Honing, punching, broaching and deep drilling
SulFol LCO 2500	0,88	>180	25	Nitrided steel, non-alloy and alloyed heat-treated steel, tool steel and high alloy steel	Drilling, turning, milling, Honing, punching, broaching and deep drilling
SulFol GBS 1500	0,83	200	15,5	Non-ferrous metals and high-alloy steel	Milling, turning, drilling and punching
SulFol GPR 2200	0,852	200	22	High-alloy steel	Broaching
SulFol GKF 1100	0,83	>190	11	Ceramics and steel	Broaching, honing, deep drilling, milling, turning, drilling and punching
SintoCut PE-S	0,82	>160	7,1	Nitrided steel, non-alloy and alloyed heat-treated steel, tool steel and high alloy steel	Milling, turning and drilling
SintoCut PE-B	0,82	>160	7,1	Steel, non-ferrous, cast material, aluminium and magnesium alloys	Milling, turning and drilling
SintoCut PE-B 1000	0,82	>150	10,4	Steel, non-ferrous, cast material, aluminium and magnesium alloys	Milling, turning and drilling

Product overview

Deep hole drilling oils

Product name	Density at 15°C (g/cm³)	Flash point (°C)	Kin. visc. 40°C (mm²/s)	Materials	Application
SulFol TMH 2200	0,86	>160	21	Chrome-nickel steel, acid and heat-resistant steel, case-hardened steel, titanium.	Deep drilling
SulFol HST 1100	0,86	>150	11	Austenitic steel, Chrome-nickel steel, heat-resistant steel, case-hardening steel, titanium	Deep drilling and heavy machining

Broaching oils

Product name	Density at 15°C (g/cm³)	Flash point (°C)	Kin. visc. 40°C (mm²/s)	Materials	Application
SulFol HXS 6000	1,02	>150	60	Steel	Broaching, thread cutting and forming, grooving and fineblanking
SulFol LCR 1700	0,89	>150	17	High-alloy steel	Internal, particularly suitable for the heaviest, slow clearing operations
SulFol SPR 3400	0,94	>140	35	Steel	Broaching and thread cutting

Minimum quantity lubrication

Product name	Density at 15°C (g/cm³)	Flash point (°C)	Kin. visc. 40°C (mm²/s)	Materials	Application
Metall-O-Fluid 38	0,84	>200	20	Aluminium	Minimum quantity lubrication
Metall-O-Fluid E	0,92	>200	43	Stainless steel, steel, non-ferrous metals	Minimum quantity lubrication
Metall-O-Fluid SPL	0,92	>150	43	Steel, stainless steel	Minimum quantity lubrication
Metall-O-Fluid OH464	0,91	>180	15	Stainless steel, steel, non-ferrous metals	Minimum quantity lubrication



For other materials and applications, please contact our technical service.



Service analytics and technical advice for your all-round service

- We accompany you right from the start with our technical service on site and our service analysis.
- With us each customer has a direct technical service contact person, who provides advice and support.

The combination of service analytics and technical service in particular offers our customers added value and the security of receiving the appropriate service for the product.

Our service analytics offer a wide range of methods and state-of-the-art analytical instruments, which are used specifically for the requirements of our customers. With this know-how we can provide assistance in troubleshooting and optimize production processes. Employees in these areas take part in training courses and exchange knowledge with each other. This systematic transfer of knowledge ensures that know-how continues to grow and plays an important role for future product developments.

Contact us to learn more about our all-round service!

Seminar courses

oelheld offers free seminars all year round, which teach the correct handling of metalworking fluids. Through this, the best possible application can be guaranteed.

Registration is possible at any time. For larger groups oelheld offers separate seminars.

Registration:

Current dates can be found on our website: <https://www.oelheld.com/en/service/seminars/>

We are looking forward to seeing you!





Process optimization

You want your machine to be more efficient?



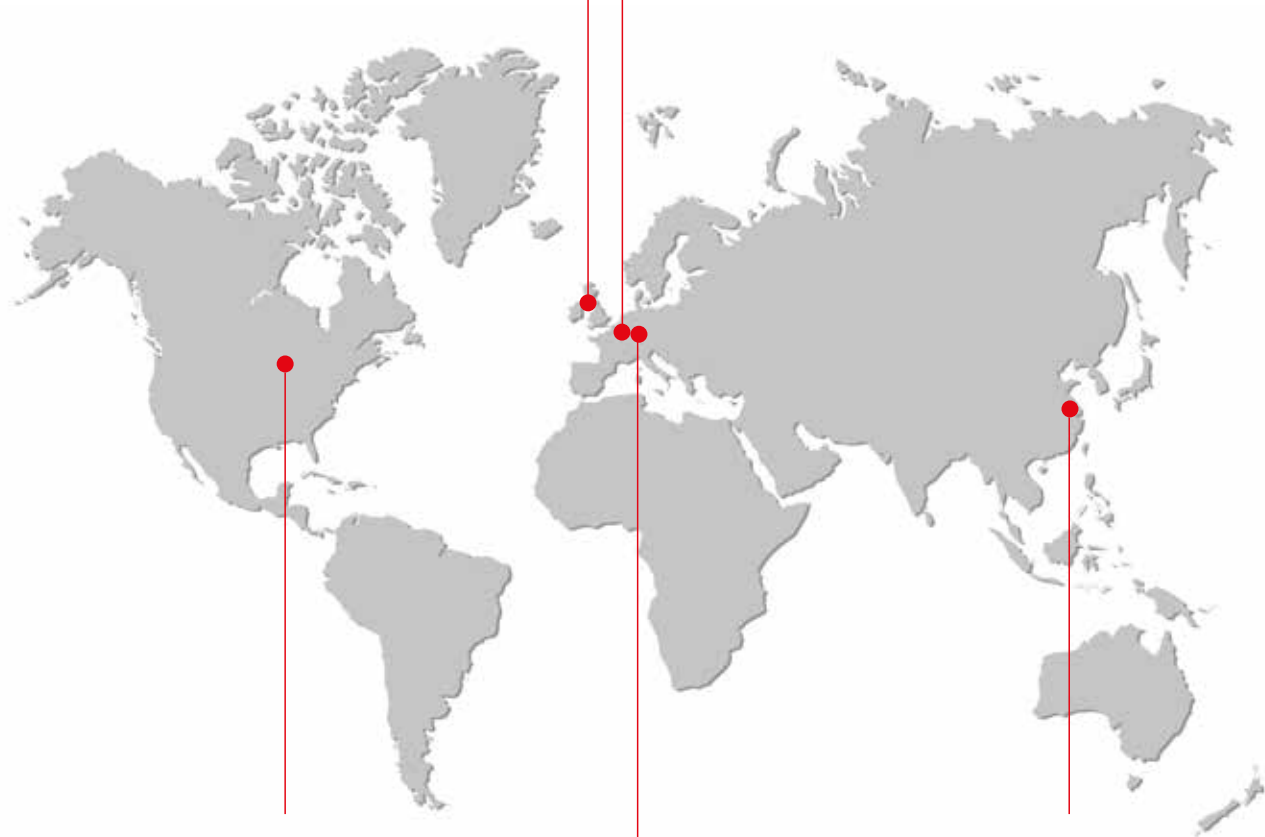
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