

AquaTec

Water-soluble coolants





Philipp and Martin Storr • Managing Directors

Your partner for cooling lubricants

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





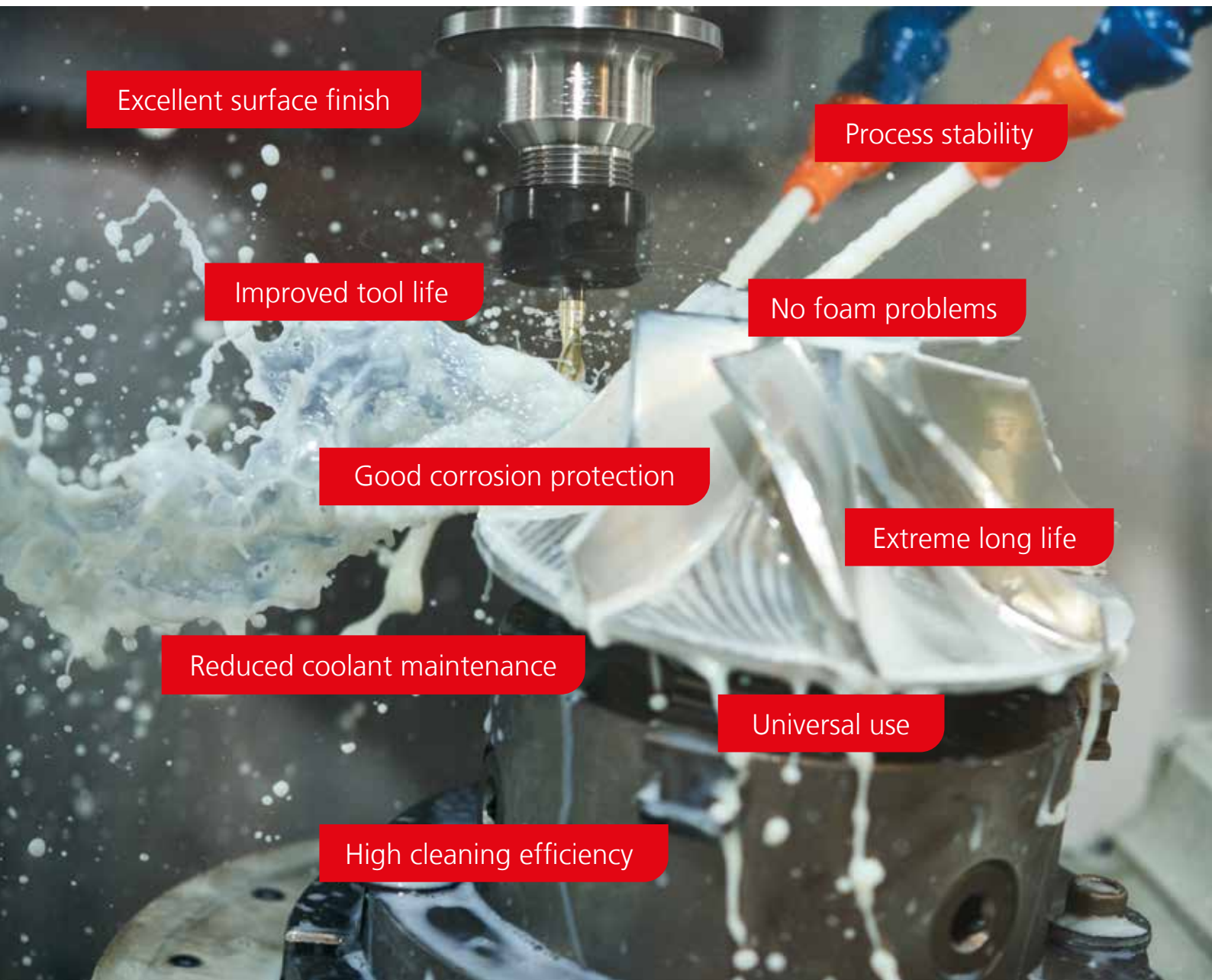
Water-miscible coolants of our AquaTec series

Users know exactly what to expect from water-miscible coolants and what problems their use can cause. These expectations, special requirements and problems have been taken care of by our research team in cooperation with machine manufacturers, universities and customers. As a result of this extensive development work, our water-miscible cooling lubricants of our AquaTec series were developed.

The AquaTec series offers the right product for every application, e.g. for high-pressure applications or for processing non-ferrous metals. During the development, special attention was paid to process stability and the reduction of maintenance costs, as this offers an enormous competitive advantage for our customers when working at high capacity. The use of modern raw materials and therefore the compliance with the latest chemical laws, make the products of the AquaTec series a long-term choice.

Provide us with your requirements and optimize your production process with a suitable product from the AquaTec range.

Your advantages when using AquaTec products:



Conclusion

By choosing the right coolant you not only save time and money, but you eliminate your other concerns so you can focus on manufacturing.



Process application

Proposals processing

| | | Grinding | Sawing | Milling | Turning | Drilling | Deep-hole drilling | Threading | Thread forming | Forming | Ceramics | Casting alloys | Non-ferrous metals | Aluminium alloys | Steels | Carbide | Plastics |
|--------------------------|--------------|-------------|--------|---------|---------|----------|--------------------|-----------|----------------|---------|-------------|----------------|--------------------|------------------|--------|-------------|-------------|
| Semi-synthetic Emulsions | AquaTec 1250 | well-suited | | | | | | | | | | | | | | | |
| | AquaTec 1548 | | | | | | | | | | | | | | | well-suited | |
| | AquaTec 1550 | | | | | | | | | | | well-suited | | | | | well-suited |
| | AquaTec 1570 | | | | | | | | | | | | | | | | |
| | AquaTec 1638 | | | | | | | | | | | | | | | well-suited | |
| | AquaTec 5530 | | | | | | | | | | | | | | | | |
| | AquaTec 5620 | well-suited | | | | | | | | | | well-suited | | | | | |
| | AquaTec 7520 | | | | | | | | | | well-suited | | | well-suited | | | |
| | AquaTec 7544 | | | | | | | | | | | | | | | | |
| | AquaTec 7630 | | | | | | | | | | | | well-suited | well-suited | | | |
| | AquaTec 7650 | | | | | | | | | | | well-suited | well-suited | | | | |
| | AquaTec 7655 | | | | | | | | | | | | well-suited | | | | |
| Synthetic Solutions | AquaTec 5000 | | | | | | | | | | | | well-suited | well-suited | | | |
| | AquaTec 5001 | | | | | | | | | | | | | | | | |
| | AquaTec 5301 | | | | | | | | | | | | | | | | |
| | AquaTec 7000 | | | | | | | | | | | | well-suited | well-suited | | | |
| | AquaTec 7300 | | | | | | | | | | | | well-suited | well-suited | | | |



well-suited



suitable



not suitable

Tell us your application and we will recommend and offer you the best suitable product.

Product range semi-synthetic emulsions

AquaTec 1250

- Mineral oil-free EP coolant concentrate
- Emulsion
- Free of amines and boric acid
- Application concentration from 6 %

Advantages

- Performance on heavy duty applications
- Outstanding lubricity and best possible corrosion protection
- High stability at low maintenance



Grinding



Milling



Turning



Drilling



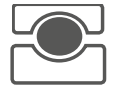
Deep-hole drilling



Threading



Thread forming



Forming

Materials: Non-ferrous metals, aluminium alloys, and (high-strength) steels

AquaTec 1548

- Mineral oil containing EP coolant concentrate
- Emulsion
- Free of amines and boric acid
- Application concentration from 5 %

Advantages

- Very low foaming
- Very skin friendly due to low pH-value
- Especially developed for the machining of non-ferrous metals



Sawing



Milling



Turning



Drilling

Materials: Non-ferrous metals, aluminium alloys, plastics, steels (suitable) and carbide (suitable)

AquaTec 1550

- Mineral oil containing EP coolant concentrate
- Emulsion
- Free of amines and boric acid
- Application concentration from 5 %

Advantages

- Wide application range
- High cooling efficiency and good lubrication properties
- Very skin friendly and pleasant odour
- Applicable at low and high water hardness



Sawing



Milling



Turning



Drilling



Deep-hole drilling



Threading



Thread forming



Forming

Materials: aluminium alloys, steels, non-ferrous metals, plastics (suitable) and casting alloys (suitable)

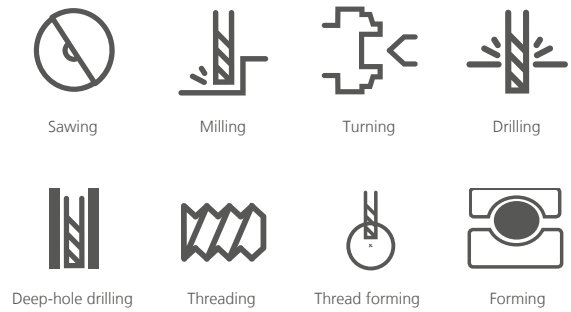
Product range semi-synthetic emulsions

AquaTec 1570

- Mineral oil containing coolant concentrate
- Emulsion
- Free of amines and boric acid
- Application concentration from 4 %

Advantages

- Wide application range
- Improved temporary corrosion protection
- Very good soil carrying capacity
- Applicable at low and high water hardness



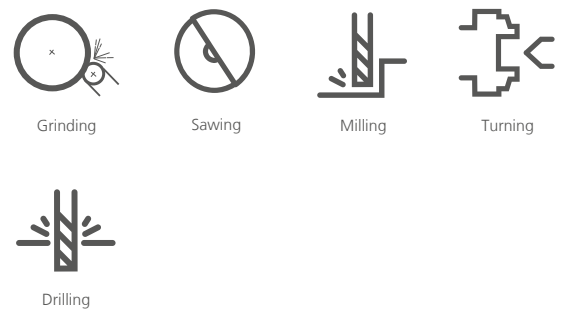
Materials: Casting alloys, non-ferrous metals, aluminium alloys, steels and plastics

AquaTec 1638

- Mineral oil containing EP coolant concentrate
- Emulsion
- Free of amines and boric acid
- Application concentration from 5 %

Advantages

- Superior flushing properties
- Best cooling and lubrication properties
- No discolouration when machining non-ferrous metals



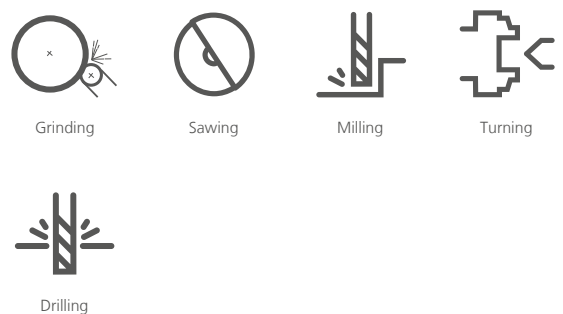
Materials: Non-ferrous metals, aluminium alloys, steels and carbide (suitable)

AquaTec 5530

- Mineral oil containing EP coolant concentrate
- Emulsion
- Free of boric acid and contains amine
- Application concentration from 4 %

Advantages

- Concept with high pH-value
- Best cooling and lubrication properties
- Low maintenance and high stability of the emulsion



Materials: Steels and aluminium alloys

Product range semi-synthetic emulsions

AquaTec 5620

- Mineral oil containing coolant concentrate
- Emulsion
- Contains boric acid and amine
- Application concentration from 4 %

Advantages

- Wide application range
- Low consumption
- Very low foaming



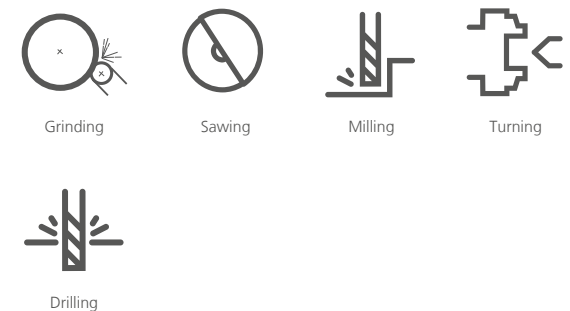
Materials: Aluminium alloys, steels and casting alloys (suitable)

AquaTec 7520

- Mineral oil containing coolant concentrate
- Emulsion
- Contains boric acid and amine
- Application concentration from 4 %

Advantages

- Wide application range
- Low consumption
- Very low foaming



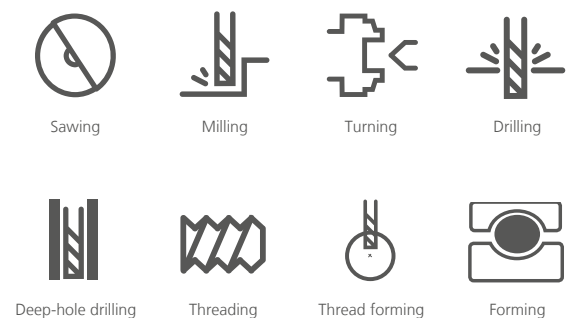
Materials: Casting alloys, steels, plastics, aluminium alloys (suitable) and ceramics (suitable)

AquaTec 7544

- Mineral oil containing coolant concentrate
- Emulsion
- Contains boric acid and amine
- Application concentration from 4 %

Advantages

- Especially suitable for internally cooled tools and high pressure applications
- Wide application range
- Low in foam, odour and mist formation



Materials: Casting alloys, non-ferrous metals, aluminium alloys, steels and plastics

Product range semi-synthetic emulsions

AquaTec 7630

- Mineral oil containing EP coolant concentrate
- Emulsion
- Contains boric acid and amine
- Application concentration from 5 %

Advantages

- Very low foaming
- Wide application range
- Less maintenance
- Good flushing properties



Grinding



Sawing



Milling



Turning



Drilling



Deep-hole drilling



Threading



Thread forming

Materials: Casting alloys, steels, plastics, Aluminium alloys (suitable) and non-ferrous metals (suitable)

AquaTec 7650

- Mineral oil containing EP coolant concentrate
- Emulsion
- Contains boric acid and amine
- Application concentration from 8 %

Advantages

- Increased tool life
- Highest surface quality of machined workpieces
- Long coolant life at lowest maintenance



Sawing



Milling



Turning



Drilling



Deep-hole drilling



Threading



Thread forming



Forming

Materials: Aluminium alloys, steels, plastics, casting alloys (suitable) and non-ferrous metals (suitable)

AquaTec 7655

- Mineral oil containing EP coolant concentrate
- Emulsion
- Contains boric acid and amine
- Application concentration from 5 %

Advantages

- Increased tool life
- Highest surface quality of machined workpieces
- Good corrosion protection



Sawing



Milling



Turning



Drilling



Deep-hole drilling



Threading



Thread forming



Forming

Materials: Aluminium alloys, steels, plastics, casting alloys (suitable) and non-ferrous metals (suitable)

Product range synthetic solutions

AquaTec 5000

- Mineral oil-free coolant concentrate
- Solution
- Free of boric acid and contains amine
- Application concentration from 4 %



Grinding

Advantages

- Excellent flushing of the grinding wheels
- Very low foaming
- Good corrosion protection

Materials: Ceramics, casting alloys, steels, non-ferrous metals (suitable), aluminium alloys (suitable) and glass

AquaTec 5001

- Mineral oil-free coolant concentrate
- Solution
- Free of boric acid and contains amine
- Application concentration from 4 %



Grinding

Advantages

- Especially developed for grinding carbide
- Low in foam, odour and mist formation
- Good cooling and flushing properties

Materials: Ceramics, non-ferrous metals, aluminium alloys, steels and carbide

AquaTec 5301

- Mineral oil-free coolant concentrate
- Solution
- Free of boric acid and contains amine
- Application concentration from 4 %



Grinding



Milling



Turning



Drilling

Advantages

- Superior lubrication properties
- Very good adhesive residue properties
- Increased grinding wheel lifetime

Materials: Ceramics, non-ferrous metals, aluminium alloys, steels and carbide

Product range synthetic solutions

AquaTec 7000

- Mineral oil-free coolant concentrate
- Solution
- Contains boric acid and amine
- Application concentration from 4 %

Advantages

- Excellent flushing of the grinding wheels
- Very low foaming
- Good corrosion protection



Grinding

Materials: Ceramics, casting alloys, steels, non-ferrous metals (suitable) and aluminium alloys (suitable)

AquaTec 7300

- Mineral oil-free coolant concentrate
- Solution
- Contains boric acid and amine
- Application concentration from 4 %

Advantages

- Additional lubrication components
- Excellent flushing of the grinding wheel
- Very low foaming
- Good corrosion protection



Sawing



Milling



Turning



Drilling

Materials: Ceramics, casting alloys, steels, non-ferrous metals (suitable) and aluminium alloys (suitable)



Please see our product information and safety data sheets before use of our products.
We are also happy to offer you our technical advice.



Quality
since 1887



Accessories



Tramp oil separator

- Optimal and continuous removal of tramp oil
- Extends the service life
- Reduces disposal costs
- Mobile unit with self-regulating skimmer



Emulsion/oil transport tank

- For mobile, spill-free supply with fresh emulsion or fresh oil
- Overfilling of the trolley is prevented through overflow protection
- Filling by an external pump or an emulsion mixer



AquaTec Mix 900 – Mixer

- Complete emptying of the canister through suction pipe
- Durable due to high-quality stainless steel design
- Constant concentration
- Saves cost and simplifies working procedures
- For 20 litre jerry cans, 60 and 208 litre drums available



AquaTec Mix 1500 – Drum mixer

- For mixing of all water soluble cooling lubricant concentrates
- Production of a stable and homogeneous emulsion or solution
- Robust and compact design
- Precise concentration adjustment
- Can be mounted directly on the drum
- Time saving and constant quality of the coolant

Accessories



CoverSkin – Skin protection agent

- Invisible protective film against all machining fluids
- Provides protection from various allergies
- Prevents fungus formation
- Protective effect for approx. 6 hours
- Protection against water and oil
- Sensing and transpiration of the skin remain



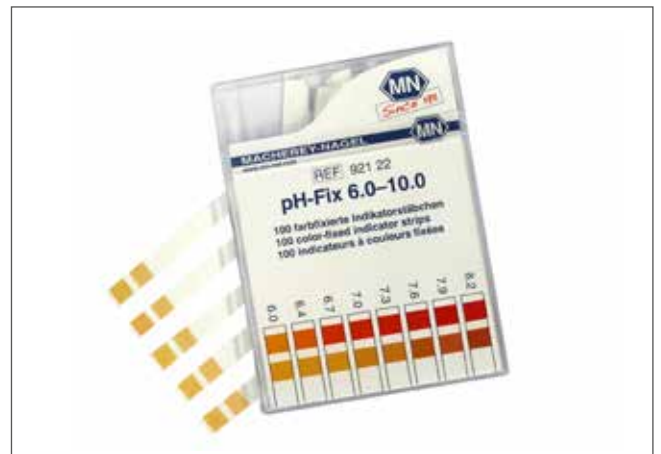
Hand refractometer

- Important instrument for emulsion and grinding solution control
- Fast control of the emulsion concentration
- Increased tool life expectancy
- Avoidance of rust due to low emulsion content
- Cost reduction



Micro-aerator

- Extension of the service life of your cooling lubricant
- Reduction of microbial contamination
- Cost reduction
- Increased efficiency of your coolant
- Reduced risk of skin diseases
- Unpleasant odors disappear



Test strips

- Monitoring of the coolant
- Cobalt, nitrite, pH value measurement
- Review of harmful substances for protection of employees
- Check service life



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 in future product developments.

Contact us to learn more about our role for future service!

Process optimization

You want your machine
to be more efficient?

1



Contact oelheld

2



First analysis on site
by an expert

3



Detailed consultation
and proposal

6



Purchase of the water
miscible coolant

5



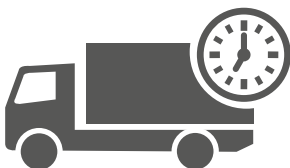
Optimal
laboratory analyses

4



Testing phase
(if applicable)

7



Fast delivery

8



Regular checks by your
oelheld contact

9



Seminars



Seminar courses – Water miscible cooling lubricants

At oelheld we offer free seminars all year round, which teach the correct handling of water miscible cooling lubricants. Through this, the best possible application can be guaranteed.

Numerous factors play a significant role, such as the requirements for the mixing water, the water hardness or, very importantly, the pH value.

Seminar 1: Basics

The seminar covers the following topics:

- Tasks of cooling lubricants
- Construction of water miscible cooling lubricants
- Care and maintenance
- Fields of application

Seminar 2: Advanced course with practical part

The seminar covers the following topics:

- Building on seminar 1
- Practical demonstrations
- Troubleshooting analysis

The seminars last about four hours and take place in the training center at oelheld. After the seminar there is the possibility to participate in a company tour.

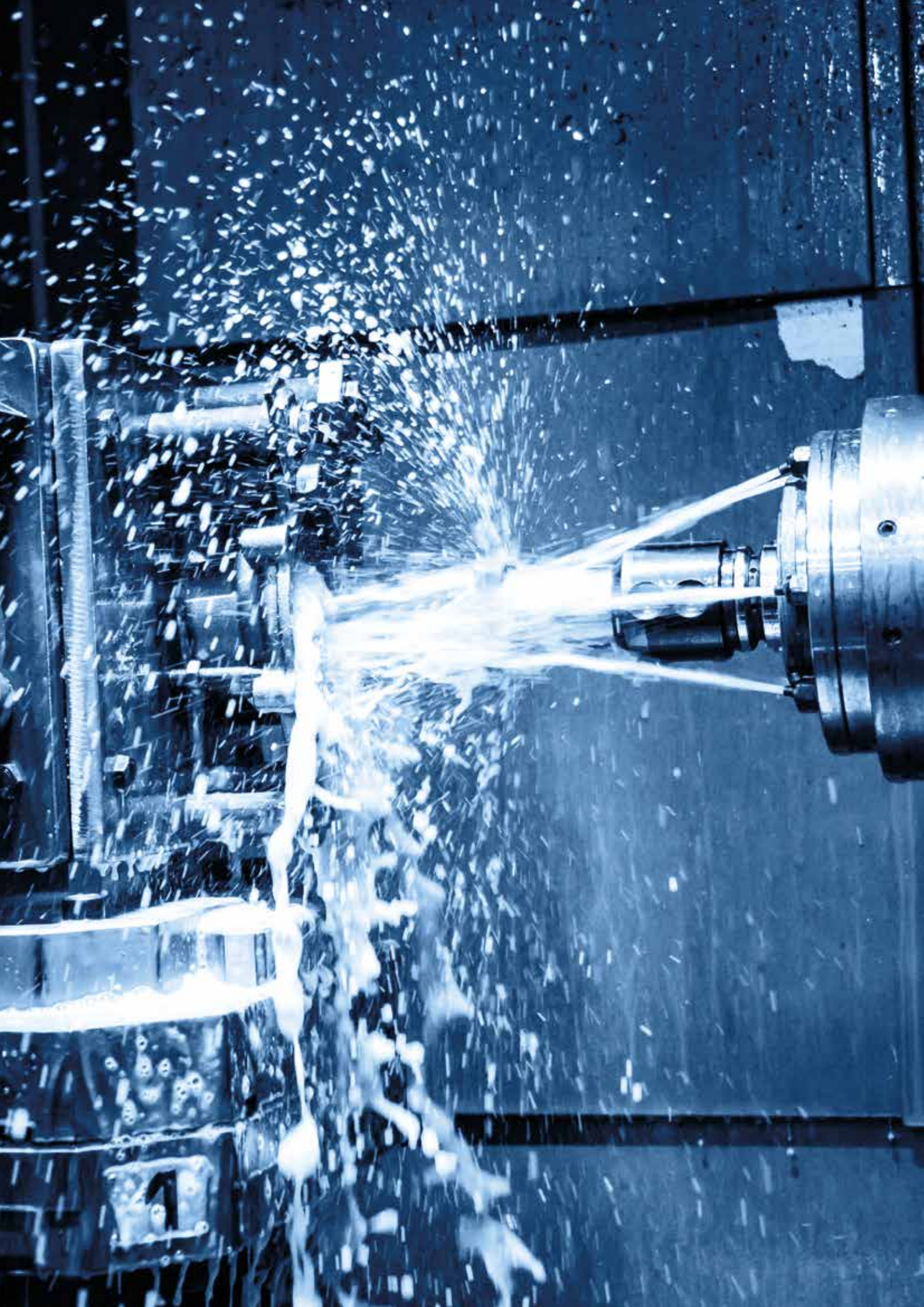
Registration is possible at any time. For larger groups oelheld offers separate seminars.

Registration

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

We are looking forward to seeing you!





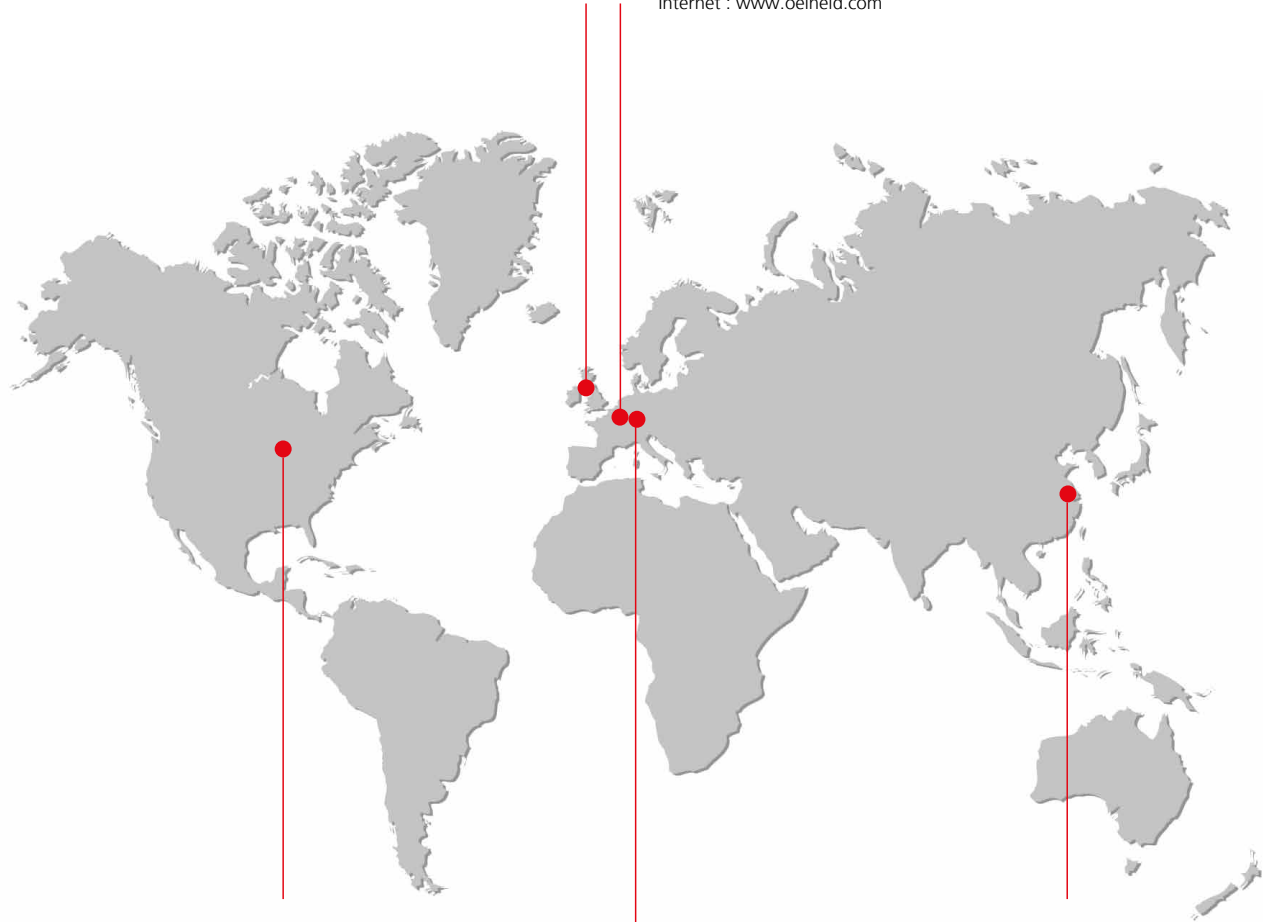
High-tech products for machines – worldwide!

oelheld UK Ltd.

Unit 16, Colomendy Business Park, Erw Las
Denbigh, LL16 5TA. • United Kingdom
Phone: +44 1745 814-777
E-mail: sales@oelheldgroup.co.uk
Internet: www.oelheld.com

oelheld technologies SAS

Technopôle de Forbach-Sud
140, Avenue Jean-Eric Bousch,
57600 Oeting • France
Phone: +33 387 90 42 14
E-mail: hutec-fr@oelheld.com
Internet : www.oelheld.com



oelheld U.S., Inc.

1100 Wesemann Dr
West Dundee, IL 60118 • USA
Phone: +1 847 531 8501
E-mail: hutec-us@oelheld.com
Internet: www.oelheld.com

oelheld GmbH

Ulmer Strasse 133–139
70188 Stuttgart • Germany
Phone: +49 711 168 63-0
E-mail: hutec@oelheld.de
Internet: www.oelheld.com

oelheld innovative fluid technology (Taicang) Co., Ltd

No. 5 Suzhou Road, Jiangsu
215400 Taicang • China
Phone: +86 512 8278 0027
E-mail: service@oelheld.com.cn
Internet: www.oelheld.com

Representatives worldwide

Argentina • Austria • Australia • Belarus • Belgium • Bosnia and Herzegovina • Brazil • Bulgaria • Canada • Chile • Croatia • Czech Republic
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oelheld[®]
innovative fluid technology

oelheld GmbH • Ulmer Strasse 133–139 • 70188 Stuttgart • Germany
Phone: +49 711 16863-0 • Fax: +49 711 16863-3500
E-mail: hutec@oelheld.de • Internet: www.oelheld.com