

Product information

AquaTec 5001

Synthetic grinding fluid concentrate for cemented carbides

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AquaTec 5001 is a high performance, synthetic metalworking fluid designed specifically for light to moderate duty working of cemented carbides, and is ideal for shops that prefer to use an oil-free product. AquaTec 5001 contains a proven and highly effective combination of inhibitors that significantly reduces the leaching of cobalt and nickel binders. The integrity of the carbide workpiece is maintained, and more importantly, the addition of toxic metal ions into the metalworking fluid environment is minimized.

AquaTec 5001 also provides excellent lubricity and cooling to extend grinding wheel life, and to improve workpiece finish. Grinding wheels remain open, and swarf quickly settles to the bottom of the sump for easy filtration due to superior rinsing and settling properties.

AquaTec 5001 can be used in "stand-alone" machines and central systems. It is an ideal product for grinding applications such as surface, centerless, ID, OD, and Blanchard, and can also be used for light to moderate duty machining. AquaTec 5001 is extremely low foaming, making it an excellent choice in high-pressure applications.

Advantages

- Significantly reduces leaching of binders in cemented carbides
- Superior lubricity and cooling for extended wheel life and workpiece finish
- Excellent rinsing and settling properties for open cutting and good filtration
- Extremely low foaming in high pressure applications
- Clear mix for good part visibility
- Rejects tramp oil for prolonged sump life
- Low odour and mist levels
- Low carry off for reduced concentrate usage

AquaTec 5001 does not contain chlorine, nitrite, silicone or phenolic biocides.

Recommended concentrations

Surface, ID, OD, Grinding	4 %
Light to moderate duty machining	4 %

The above-mentioned concentrations are an average. After on site check our oelheld specialist will recommend an adapted concentration and topping up rate for your application.

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Technical Data

Form	Yellowish liquid	Typical operating pH-value	9.1 – 9.3
Density at +20°C	1.06 g/cm ³	pH-value (concentrate)	10.2
Solubility in water	100% miscible	Flash point [°C]	n.a.

Mixing instructions

Always add AquaTec 5001 to water. Mixed concentration can be determined using a refractometer. **Refractometer factor = 2.4**

Concentration	3% (1:33)	4% (1:25)	5% (1:20)	6% (1:17)	7% (1:14)
Refractometer reading	1.3	1.7	2.1	2.5	2.9

A mixing device and the use of premixed concentrate as makeup will improve performance and reduce usage. The specific makeup concentration selected for your situation should balance the water evaporation rate with the coolant carry-off-rate. Adding makeup concentrate at 20 – 30% of the desired working concentration will generally maintain the proper concentration in use. The use of deionized or mineral-free water for makeup will also improve performance, prolong sump life, and reduce concentrate usage.

A thoroughly cleaning of the machine sump or central system with system cleaner is recommended to remove oily residues, dirt deposits and biofilms of bacteria and mould before refilling the system.

Notes

- The most recent MSDS is available from either oelheld or your authorized oelheld distributor
- Consult oelheld before using this product on any metals or applications not specifically recommended
- Do not use any metalworking fluid additives except as recommended by oelheld
- The general description, recommended uses, application data and statements in the product literature are guidelines. Because this product may be used for a variety of applications over which oelheld has no control, oelheld assumes no liability for incidental, consequential, or direct damages of any kind, regardless of causes, including negligence.

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