Trent Cool 505

Fully Synthetic Water-Soluble Boron and Formaldehyde Free Grinding Fluid

Technical data

Description

Trent Cool 505 is a Boron and formaldehyde free fully Synthetic water-soluble grinding fluid.
The mineral oil-free, transparent solution provides long sump life and excellent tramp oil rejection.

Application

Trent Cool 505 has been designed for surface and cylindrical grinding applications, formulated for the machining of a wide range of ferrous and non-ferrous materials including yellow metals.

Trent Cool 505 Offers superb low foam performance along with an extremely long service life which does not leave any sticky residue around the machine tool during use.

Benefits

- Very long sump life — Extends intervals between system cleanouts.
- Ultra-low foam — Ideal for the highest working speeds and pressures.
- Operator Friendly — Outstanding tramp oil rejection properties.

Typical Inspection Data

Properties	Inspection Data
Emulsion Appearance	Translucent
Density at 20°C	0.97 typical
Foaming tendency @ 5% in 50ppm water	Nil foam after 5 seconds
pH Diluted @ 5%	9.3 typical
Refractometer Factor	2.5
IP 287 Corrosion Break Point, % Volume:	2.5

Concentration Range

3-6% depending on type of operation.

Mixing

Use coolant mixing valves where possible. When mixing by hand slowly add concentrate to water whilst stirring vigorously. Coolants should not be mixed in the machine sump and avoid using chilled water.

Top Up

Coolant concentration may increase in use due to water evaporation. To maintain the recommended concentration, top up should be made with a more dilute concentration and not by water alone.

TRENT LUBRICANTS

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OPERATIONS	DILUTION	
Surface Grinding	3-6 %	●
Cylindrical Grinding	3-6 %	●

MATERIALS	
Steel	●
High Alloy Steel	●
Aluminium Alloys	●
Aero Aluminium Alloys	●
Copper Alloys	●
Glass	●

● Main Application ○ Possible Application

Fluid Maintenance

Poor or incorrect emulsion preparation may lead to instability and could considerably shorten the life of the emulsion. Prior to making any fresh fill, we would highly recommend full cleaning including the use of a compatible system cleaner.

Water Quality

Coolant performance can be affected by extremes of water quality. Hard water (in excess of 300 ppm CaCO3) and high levels of chlorides and sulphates can reduce the stability of emulsions and reduce corrosion protection. Please contact your Trent Lubricants area manager and they will gladly advise on local water quality.

Contamination

Where possible avoid contamination from foreign matter and other fluids. Remove swarf and tramp oil from the machine sumps frequently.

Disposal

Discarded metal working coolants may be removed by a competent waste contractor. Alternatively, the product may be treated by conventional oil separation and effluent disposal methods. Specific advice is available on request. Product concentrate or diluted fluid should not be introduced into waterways. It is advisable to consult the Local Water Authority regarding disposal.

Storage

Metal working coolants should be stored indoors in clean, dry conditions.
Protect from frost as the recommended storage temperature with all metal working products is between 4°C and 35°C. A shelf life of six months can be anticipated.

Health and Safety

Please refer to the relevant Trent Safety Data Sheet.

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Prior to using this product, consult the Material Safety Data Sheet for instructions regarding safe handling and environmental issues. The information contained herein is based on data available to us and is believed to be accurate. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY USE, OR ANY OTHER WARRANTY IS EXPRESSED OR TO BE IMPLIED, REGARDING THE ACCURACY OF THESE DATA. THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, OR THE HAZARDS CONNECTED WITH THE USE OF THE PRODUCT. Trent Oil Lubricants Ltd. assumes no liability for any alleged ineffectiveness of the product or any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is solely attributable to negligence on the part of Trent Oil Lubricants Ltd.

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