

Medium duty synthetic metal working fluid



Application

Cimtech A34 is recommended for medium-duty machining and grinding operations on non-ferrous or ferrous metals. Cimtech A34 can be used in individual machines as well as in central systems. Cimtech A34 is recommended to be used with demineralised water.

Features and benefits

- Cimtech A34 is a unique, neutral pH synthetic fluid primarily designed for machining operations on cast aluminum alloys used in the automotive industry, but can be used on other aluminum and steel alloys as well.
- Rejects tramp oil to keep product clean, which extends sump life
- Transparency provides excellent part visibility.
- Will not smoke - Low misting - Mild to the skin - high operator acceptance.
- Very low foaming even when used with deionized water.
- Cimtech A34 does not contain sulphur, chlorine, formaldehyde, diethanolamine or boron.
- Additives should only be used after consulting a Cimcool representative.

Physical and chemical properties

Density (20°C):	1,065 kg/m ³
pH (concentrate):	8,1
pH (operating):	7,8

Methods of Application

Cimtech A34 is easy to mix, normal stirring only. For automatic mixing, the use of the Cimcool® Mix Master or Cimcool Mix Master S is recommended. Typical starting water temperature conditions should be 5 - 25°C.

Recommended starting concentration

Milling, drilling, turning and grinding	5%
Wrought and cast aluminium alloys, carbon and stainless steel, titanium and exotic alloy	5%

Use of lower concentrations than recommended above may cause foaming, corrosion and/or rancidity.

Metal and water compatibility

Type of metal	Aluminium	Steel, carbon- & stainless steel	Titanium and other 'hard' alloys
Compatibility	Excellent with hard Al (typically wrought and cast Al). In soft Al beware of chip build up on tools in high-speed threading, tapping and deep hole drilling operations compared to oil based fluids. For use with very special grades of Al a staining test is recommended before using the product.	Excellent	Excellent
Water compatibility	Advised to be used with demineralised water. Not doing so will in time, cause lime deposits and/or corrosion. It is recommended to check and keep the chloride concentration in the mix below 150 ppm to ensure satisfactory ferrous corrosion control.		
Remarks	Being free of mineral oil Cimtech A34 may have a tendency of leaving a more sticky residue than traditional oil based fluids, in particular on open machines. However, regular spraying with a 1% solution of Cimclean 51 followed by wiping with a cloth (prevent fluid contamination) will easily remove such residue. Beware of residue when using measuring instruments and clean moving parts frequently. Applying a thin coat of Cimguard 20 may prevent such problems, and will not interfere with instrument measuring accuracy.		

The above are general guidelines for single use on the above metals only. For suitability on materials not mentioned, or suitability for mixed machining of various metals with the same fluid in the same machine/system, contact your local Cimcool representative.

Mix Master S:	Concentration** can easily be obtained by setting the regulator to the correct number.
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** The concentration may vary depending on local conditions. It is therefore always advised to check using the refractometer or TA Kit.

Concentration Analysis

For concentration analysis, use one of the below given methods or an appropriate laboratory procedure available from your local stockist.

Refractometer factor:	2.1
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If the refractometer is used, the resultant reading multiplied by a factor of 2.1 will only be relevant when applied to a fresh mix.

Cimcool TA kit	Use 2 ml. Mix								*: next syringe	
%	1	2	3	4	5	6	7	8	9	10
Reading	0.88	0.74	0.60	0.47	0.33	0.19	0.05	*0.91	*0.78	*0.64

Handling and storage

Protect from freezing, direct sun and store between 5 - 35°C.

Packaging type

200 and 1.000 litre.

Safety Data Sheet

The Safety Data Sheet should be consulted for specific information and information on Health, Safety and Environment when handling this product.



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