master chemical

TRIM® E905

TRIM® E905 was designed to give very high machining performance in cutting and grinding operations on difficult materials such as stainless steel, nickel alloys and titanium. Features of this product include high alkalinity in dilution, excellent sump life, particularly in a hard water environment and excellent corrosion protection. TRIM® E905 has the capability to be used in multi-metal 'jobbing' shops on ferrous, non-ferrous and non metallic work.

TRIM® E905 is formulated to comply with all current and anticipated requirements, that's why it is not classified as hazardous under the CHIP 3 regulations.

Full information on request.

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Local distributor

Features and benefits

TRIM® E905 Formulation based on modern MWF chemistry
TRIM® E905 Contains no nitrites, no diethanolamine and no pehnolics
TRIM® E905 Provides very high lubricity to maximise tool life
TRIM® E905 Requires no hazard labelling
TRIM® E905 Is extremely biostable
TRIM® E905 Is hard water tolerant
TRIM® E905 Has in low foam soft water

Recommended working parameters

- Concentration 5% - 10%
- pH - 8.9 - 9.3 range

These parameters, together with a very effective biocidal package result in an excellent sump life. Capable of being recycled with good tramp oil separation and without significant changes in emulsion characteristics.

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case studies

Automotive industry

OBJECTIVE: Automotive parts manufacturer initiated a TRIM® E905 trial due to problems with excessive foaming, short sump life, heavy residues and excessive concentrate usage with their previous fluid.

OPERATION: TRIM® E905 was installed into an 8,000 litre central system feeding numerous vertical machining centres drilling and tapping 316 stainless steel components. Coolant pump pressures - 40Bar. Water for top-up was >400ppm hardness.

OUTCOME: TRIM® E905 has performed extremely well. Sump life is 12 months without addition of additives. The customer has stopped adding antifoam and has also reported markedly improved machine cleanliness. Coolant top-up concentration with TRIM® E905 is half that of the previous coolant. This, coupled to the longer sump life, has reduced concentrate usage from four drums per month to two.

Sub-contractor: aluminium and cast iron machining

OBJECTIVE: The customer's previous coolant was separating in the machine sump due to instability in hard water plus it was unable to machine both aluminium and cast iron. The objective of the trial was to find a single coolant, with a superior sump life, that would also produce the desired high quality surface finishes on the aluminium components whilst also providing sufficient corrosion protection for the cast iron components.

OPERATION: The customer is drilling, tapping and reaming cast aluminium and cast iron using through tool coolant at 40Bar pressure. The water used for concentrate make up is approximately 342ppm hardness.

OUTCOME: TRIM® E905 was installed in four machining centres and gave 18 months sump life despite the very hard water. TRIM® E905 provided excellent surface finishes on the aluminium parts and provided superior corrosion protection on the cast iron components. The customer is very satisfied with the fluids characteristics.

Sub-contractor: aluminium machining

OBJECTIVE: The customer's previous coolant had to be used at 15% in a roller burnishing operation on cast aluminium parts. This high concentration coupled with the fact that the customer uses mineral free water was causing excessive foaming in the machine sump. The objective of the trial was to solve the foaming problems whilst also decreasing the concentration, hence the cost.

OPERATION: The customer is drilling, tapping, reaming and roller burnishing cast aluminium using through tool coolant at 40Bar pressure. The water used for concentrate make up was mineral free.

OUTCOME: TRIM® E905 was installed at 12% concentration. This was sufficient to give the desired surface finishes in the burnishing operation. TRIM® E905 is low foaming in all water types so the foaming issue was immediately resolved. The customer was satisfied as coolant consumption was decreased and there was no need to add costly antifoams.