

CASE STUDY

MOVING YOUR WORLD



Heavy-duty diesel vehicle brake system manufacturing

Application: ECOCOOL GLOBAL 3500

Location: United Kingdom

Customer

A leading global manufacturer specializing in heavy-duty diesel vehicle brake systems, faced critical challenges in their machining processes.

Challenge

The customer was experiencing high coolant consumption which disrupted production resulting in inefficiencies and increased costs. The fluid's appearance deteriorated, affecting both aesthetics and performance with unpleasant smells emanating from the machining area, impacting the work environment. An accumulation of black, sticky deposits compromised machine cleanliness. Frequent tool failures led to downtime and reduced productivity. Excessive foam hindered machining operations. Maintaining consistent fluid concentrations proved challenging. The client was alarmed by the safety labeling of their incumbent products & sought safer alternatives.

Solution

To ECOCOOL GLOBAL 3500, a water-miscible machining and grinding coolant, was specifically designed for ferrous and multi-metal materials. It delivers superb surface finish, enhancing product quality whilst the fluid's longevity significantly reduces downtime for coolant changes. ECOCOOL GLOBAL 3500 eliminates the need for formaldehyde-based biocides and boron additives. The product is near odorless and non-irritating which results in an improved work environment. Global consistency - one formula, globally applicable, ensured quality across all manufacturing sites.

Results

The customer noticed substantial cost savings by eliminating tank-side additive expenses alongside reduced machine stoppages and improved tool life which enhanced productivity. The black deposits vanished leaving machines in pristine condition with happy operators. ECOCOOL GLOBAL 3500's low foaming properties controlled this former persistent issue with consistence performance across varying water hardness levels. The product was also compliant with the chemical regulations of major economies. The customer's manufacturing process was transformed leaving operators satisfied and the client's bottom line healthier.

Advantages

Improved tool life

Improved machine cleanliness

Improved working environment

Reduced foaming

Reduced downtime

Reduced deposits

Compliant labeling

Cost savings

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Precision machining of food & beverage equipment, where surface finish is critical

Application: ECOCOOL GLOBAL 2000
Location: United Kingdom

Customer

A globally reputable food and beverage equipment and tooling manufacturer to the glass and canning industries. Machining mixed materials, predominantly aluminum, cast iron and tooling steels.

Challenge

The customer was experiencing a range of issues, due to poor coolant choice and a lack of support from their previous supplier. The issues included bad odors from coolant, dirty machine tools, poor sump life. Losses due to unplanned maintenance stoppages for coolant changes, and regular tool breakages. High levels of tank side treatments for foam and trying to control bacterial ingress. Corrosion inside machines and a lack of control of fluid concentrations.

Solution

ECOCOOL GLOBAL 2000, which is designed primarily for machining aluminum alloys and steels, also has properties to machine cast iron and keep the machining area running clean. This combined with FUCHS SMART SERVICES proved to be the perfect formula.

Results

ECOCOOL GLOBAL 2000 improved the overall environment of the machine shop, bad odors were eliminated without the use of expensive tank side treatments. Machine tools were noticeably cleaner inside the machining areas and around the tool magazines. The customer saved £1,164 per machine tool. This was achieved by more than doubling their sump life, using less coolant, and no unplanned downtime to clean machines. Switching to ECOCOOL GLOBAL 2000 also eliminated the need for tank side treatments. Surface finish was improved and there was less rework of components and scrappages. The customer also commented that their work force is happier, and this was down to using a better coolant and the support service that FUCHS have provided.

Advantages

Improved surface finish

Improved sump life

Improved machine cleanliness

Reduced foaming

Reduced downtime

Reduced consumption

Reduced odor

Reduced residue build-up

Reduced reworks & scrappages

Helpful support services

Cost savings of £18,624