PRECISION PERFORMANCE IN ALUMINIUM MACHINING

IT’S MORE THAN JUST OIL. IT’S LIQUID ENGINEERING.
DON’T LET BUILT-UP EDGE COMPROMISE THE PRECISION OF YOUR ALUMINIUM MACHINING

The demand for lighter products from automotive, machinery and fabricated-metal-goods businesses is driving the need for precision-made aluminium components. Today’s component manufacturers have to be creative when it comes to machining aluminium to meet complex designs and tight tolerances.

This can be a challenge because aluminium can adhere to tool surfaces, creating a built-up edge. This changes the tool shape and reduces dimensional control in the machining process. The result: rejected components, wastage and rework.

Castrol Alusol has been formulated to help address these challenges. Its outstanding properties deliver essential lubrication to the point of cut, which helps reduce built-up edge on the tool. So no matter how creative or progressive your ambitions for aluminium components are, Castrol Alusol helps you achieve them by making precision machining a reality from the first cut.

The Castrol Alusol product range has been formulated to:

- Provide essential lubrication to cutting processes to improve machinability.
- Generate a high-quality surface finish and reduce staining.
- Help lower costs by extending fluid life and reducing downtime for maintenance.
PROVEN BENEFITS DELIVERED BY THE CASTROL ALUSOL RANGE

Precision Performance

Aluminium build-up on the tool edge changes the shape of the tool and reduces surface-finish quality.

Tests show that Castrol Alusol can produce a consistently higher-quality surface finish versus comparable metalworking fluids.

Average Surface Finish – Reamed Holes

Material – 356 Aluminium (AlSi7Mg)

- Formulated to provide superior performance on automotive aluminium.
- Inherently resistant to microbial growth for long-lasting effective performance.
- Specifically created for multiple applications to enable product consolidation.

* Not all products are available in all locations. Please consult your Castrol representative or refer to the Lubricant Oracle at castrol.com.
INCREASED PRODUCTIVITY, REDUCED COST

The images below show the difference between good and poor lubrication on automotive-grade cast aluminium. You can see the vast improvements in surface finish that can be achieved using a Castrol Alusol product.

■ Switching to a Castrol Alusol product helped two aluminium component manufacturers reduce the concentration of coolant used from 10% to 7% and from 14% to 8% respectively.

■ An automotive brakes manufacturer reduced its spend on anti-foam additives by switching to a Castrol Alusol product recommended specifically to meet the company’s foaming issue.

Good lubrication from Castrol Alusol produces a high-quality finish, 0.1 Ra (Roughness average) for precision components

Poor lubrication reduces surface finish, 0.8 Ra, and can lead to parts being rejected

Please contact us today for further information.

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