Outstanding Performance in Honing with Alusol AU 68

AUTOMOTIVE (MEXICO)

HONING CONNECTING RODS

Castrol Alusol® AU 68

ANNUAL SAVINGS: $21,000

THE SITUATION

A major automotive manufacturer was using a competitor's soluble oil at a very high concentration (17%) for rough and fine honing of connecting rod journal bores (Gehring hones).

The diamond tool performance was poor, and the surface finish could only be maintained using a high concentration.

The end result was that the operation wasn't reliable, and the consumption of tools and coolant were so high that the operation was very costly and inefficient.

BEFORE

- Fluid usage/mo: 112 liters
- Usage from 5 fluid changes in 8 months: 1170 liters
- Frequent change of tools in each work shift.
- Cumulative cost across 4 honing systems: $39,648

AFTER

- Change to Alusol AU 68 with usage/mo: 45 liters
- Concentration of 8%
- Better tool life and improved surface finish
- Cumulative cost across 4 honing systems: $18,648

THE SOLUTION

- Based on our experience at other major automakers, Castrol recommended Alusol AU 68 at 8% dilution for honing.
- The customer conducted a 6-month detailed study monitoring compatibility, sump life, usage, tool performance, and surface finish.
- During trial, some adjustment were made (position of nozzles, coolant flow, concentration) in order to achieve optimum surface finish and tool life.
- We strongly recommended to improve the filter media system in order to maintain best performance long-term.

- **Experience to recommend the right fluid for the application**
- **New fluid technology for critical machining operations**
- **Full technical support in-plant to ensure success**
- **Excellent customer relationship built on long-term team approach**

Outstanding Performance in Honing with Alusol AU 68

RECOMMENDATIONS

Castrol recommended Alusol AU 68 at 8-10% concentration based on excellent success in honing at other automakers.

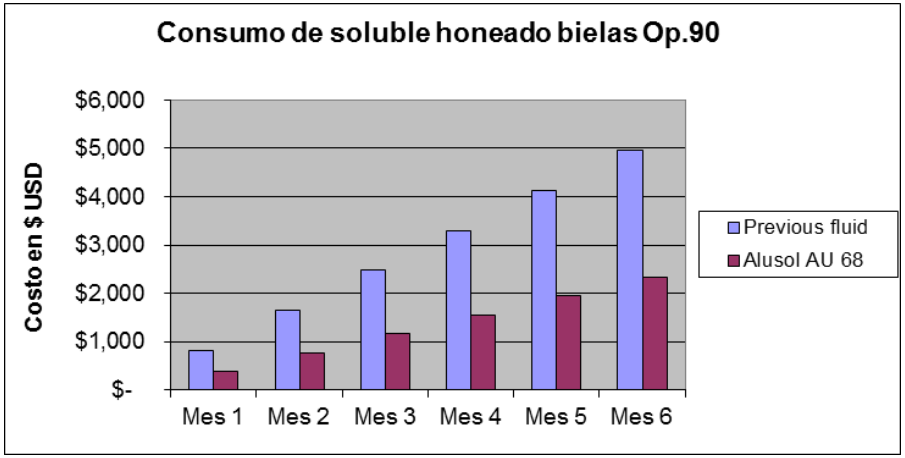
We believe through improved filtration the customer will achieve even longer coolant and tool life. The current filtration system is limited due to the filter media and the subsequent build-up of metal fines on the bottom of the sump tank.

CONCLUSION

The customer is very satisfied using a single fluid for all honing operations in this plant, simplifying their purchasing, inventory, and coolant controls.

Usage was greatly reduced through longer fluid life and less carry-out. Tool life was improved due to the coolant lubricity and exceptional cleanliness.

The result was an annual savings of $21,000 from lower usage and longer tool life.



OTHER POTENTIAL APPLICATIONS

Alusol AU 68 is an excellent machining fluid for applications requiring high machining performance and excellent cleanliness. Honing is just one of the key areas where it excels, especially with automotive blocks and con rods.