CASE STUDY:

Cost savings through bearing wear reduction

MAXI-LUBE™ Ultra improves reliability and reduces cost

This customer is a manufacturer of high-alloy, centrifugal and static-cast components and assemblies.

PROBLEM

Spin casting uses centrifugal force to produce castings from a rubber mold. Typically a disc-shaped mold is spun along its central axis at a set speed. The casting material, usually molten metal or liquid thermoset plastic, is then poured through an opening at the top of the mold. Once the mold is filled, it continues to spin until the metal solidifies or the plastic sets.

The spin casting process operates under heavy loads, high pressure and extreme heat, resulting in excessive bearing failures. Additional costs included:

- Bearing and seal repairs of approximately $225,000 per year
- Production loss of approximately $45,000 per day due to downtime
- Lasting impact to overall business resulting in increased production time

CHEMSEARCH SOLUTION

CHEMSEARCH helped the manufacturer cut costs and reduce downtime through the application of MAXI-LUBE Ultra and an on-going maintenance program.

Once the problem was identified, they:

- Replaced the old and defective bearings
- Removed the old grease from equipment
- Applied MAXI-LUBE Ultra to the new bearings and equipment
- Monitored performance of equipment, seals and bearings

RESULTS

The manufacturer saw a 400% increase in the life of their bearings, while experiencing a 65% reduction in grease consumption. They saved $482,480 with Chemsearch in the first year.

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TESTING DATA DETAIL

Equipment & operation: 8 spinners operate under heavy loads from 10,000 to 40,000 pounds at high temperatures ranging from 500-800°F.

Usage	Before	After	$ Savings
Grease	18x48 cartridges 35olb kegs	6x48 cartridges 7olb kegs	60% 80%
Bearings and seals	$225,000	$30,000	$195,000
Labor*	$18,240	$760	$17,480
Production losses**	$315,000	$45,000	$270,000
Total Annual Cost	$558,240	$75,760	$482,480

* Two mechanics approximately 10 hours each @ $38/hr. per mechanic for each bearing changed

** Estimated based on # of failures

CONCLUSION

The manufacturer extended bearing life and reduced overall maintenance costs with CHEMSEARCH and MAXI-LUBE Ultra.