



Machining

## **Case Study: Lakshmi Machine Works Slashes Coolant Spend by 32% with Master Fluid Solutions**

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The textiles and apparel industry is the second-largest employer in India, with 45 million workers. It comprises 13% of the country's export earnings, with anticipated 28% annual growth through 2021. As a critical component of the Indian economy, textile manufacturers need to know their machines are reliable.

Lakshmi Machine Works Limited (LMW) produces the machines that power this economic sector. It's the largest manufacturer of textile machines, and it works primarily with steels and grey irons. The company provides the latest spinning technology to Indian textile mills, and it also produces CNC machine tools.

### **THE CHALLENGE**

Grey iron poses challenges to metalworking shops due to its propensity to rust. It also causes some coolant emulsions to fail quickly, change colors, leave heavy residue on machines, and develop rancid odors.

In particular, if LMW let a machine sit idle for a few days, the odor from its incumbent coolant would be overpowering upon startup. The coolant formed residue buildup on sensors, which caused the machine to malfunction and necessitated unplanned maintenance. The poor coolant performance not only required cleaning out sumps every six months, but would also create rust issues on parts, requiring downtime and extra steps to create usable parts.

### **THE SOLUTION**

LMW chose Master Fluid Solutions' TRIM™ SC9030SGM, a high-oil semisynthetic coolant designed to inhibit corrosion on ferrous and nonferrous metals. This fluid can resist the "smutting" that results from machining cast irons and reduce residue formation. Additionally, TRIM SC9030SGM helps keep machines clean and eliminates rancid odors.

## THE RESULTS

After the switch to TRIM SC9030SGM, sump life increased by **50%**, from six months to nine months. The new coolant eliminated rust issues and drastically reduced smutting, resulting in cleaner machines. LMW was able to reduce the amount of concentration used, resulting in a **32.2%** cost savings for coolant. And because it didn't need to clean machines and change over the coolant as often, LMW decreased its downtime by **30%**.

In addition, LMW created better working conditions for the operators by eradicating rancid odors. Fewer parts need to be rejected due to rust, and sensor failures due to residue buildup are no longer an issue.

## THE NUMBERS

- **50%** increase in sump life
- **32.2%** decrease in coolant spend
- **30%** reduction in downtime

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