CASE

CAST IRON MACHINING

QUAKERAL 377

INTRODUCTION

A major automotive manufacturer was experiencing issues with mycobacteria. The plant had 20 reported cases of worker's compensation related to hypersensitivity pneumonitis over the past 2 years. The manufacturer approached Quaker for help with eliminating the mycobacteria in a 50,000-gallon central system.

IMPACT

Quaker Management Services℠ (QMS℠) introduced QUAKERAL 377, resulting in a 61% usage reduction and a projected yearly cost savings of over $150,000! In addition, the manufacturer received the following benefits:

- Elimination of mycobacteria – the system has repeatedly tested negative and there have been no reports of health issues
- Coolant usage has been reduced from an average of 2,200 gallons/month to just 870 gallons/month
- Elimination of the need for biocide that was being used at nearly $2,000/month
- All required machining tolerances have been met consistently

PROCESS & EQUIPMENT INFORMATION

Operations:	Rough & finish milling, rough & finish boring, step drilling, tapping, gun drilling
Material:	Cast iron
Part Produced:	Master cylinders and anchor plates
System Size:	50,000 gallons
Concentration:	7-9%

Quaker

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PRODUCT DESCRIPTION

QUAKERAL 377 is a high-performance emulsifiable metalworking fluid designed for heavy-duty machining and grinding operations requiring a high degree of lubricity, cleanliness, cooling and corrosion protection. It is recommended for more difficult machining and grinding operations on cast iron and steel alloys and for critical surface finish machining of cast aluminum alloys. This product is designed to control microbiological growth including mycobacteria.

CUSTOMER REFERENCES

- Bosch
- Consolidated Diesel
- DaimlerChrysler
- General Motors

COST-BENEFIT ANALYSIS

Metalworking lubricants represent a very minor part of the costs in a metalworking process, typically less than 1%. This case illustrates the importance of correct fluid selection. The impact of the fluid can be a multiple of its costs, making the price of a metalworking fluid insignificant. That's why Quaker focuses on developing fluids with the highest performance without compromise, fluids that sharpen your competitive edge.

CASE