CASE STUDY

# Automotive:
# $300K Annual Savings in Grinding Operations with QH FLUID INTELLIGENCE™ Solution

QH FLUIDCONTROL™ XMS

## The Challenge

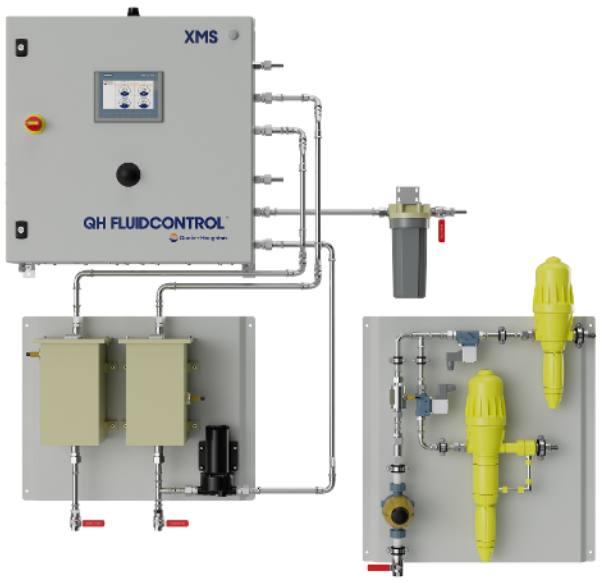
A major automotive OEM manufacturing facility in the USA uses high-pressure gear tooth face grinding for critical applications. The facility struggled with coolant stability and maintaining precise grinding coolant parameters due to issues with the existing coolant and centralized filtration system, resulting in high maintenance and operational costs.
The facility was utilizing a competitor coolant, plagued by bacterial and fungal issues, high drag-out rates, and poor corrosion inhibition, with significant fungal biomass across all machines. These issues led to poor fluid life, frequent clogs, additional costs for fungicide additives, and negative impacts on operator morale and machine functionality. The 17 grinding machines impacted by these issues were linked to a central filtration system. To remove the fungal build up the system was taken out of operation for 5 days every quarter for deep cleaning and removal of contamination. The subsequent downtime costs and lost production was significant.

## The Solution

Once the customer became a QH FLUIDCARE™ customer, the onsite team introduced the QH FLUID INTELLIGENCE™ solution: QUAKERCOOL® 2776-XT, a synthetic coolant and QH FLUIDCONTROL™ XMS to address the customer's challenges. The coolant demonstrated improved emulsion life and compatibility with the facilities processes, leading to its implementation across the plant. The QH FLUIDCONTROL™ XMS measuring and controlling system was also connected to the main central filtration system which supplies the 17 grinding machines. QH FLUIDTREND™ has also been linked to the unit providing live information, alerts and accurate reports.

## The Benefits

- **Reduced Total Cost of Ownership:** Reduced operational costs by $300,000 annually
- **Decreased Downtime:** Significantly reduced machine downtime by 75%, which are over 1,000 hours of additional production time per annum
- **Improved Process Efficiency:** Consistent and controlled concentration levels, pH, and conductivity, enhance production efficiency, reducing scrap rate and maintenance costs
- **Enhanced Quality Control:** Continuous monitoring and real-time adjustments ensuring consistent product quality with QH FLUIDTREND™

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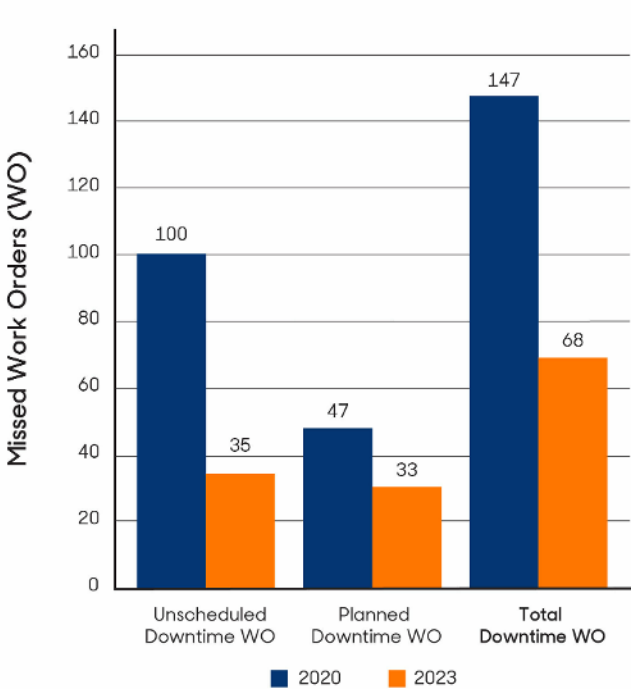
## Equipment Selection and Implementation

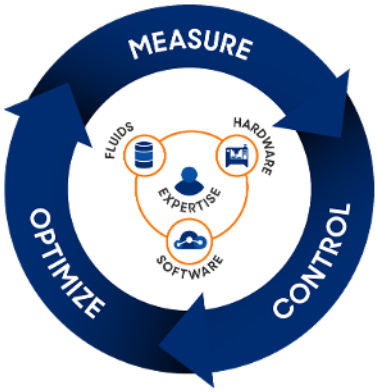
Quaker Houghton deployed the QH FLUIDCONTROL™ XMS equipment to the centralized filtration system. This equipment managed the coolant mixture and provided real-time monitoring and adjustments, consistently ensuring optimal concentration and stability across all operations. The installation was quick and completed by the customer.
Quaker Houghton's comprehensive approach not only solved the immediate issues related to coolant management but also provided long-term stability and cost savings, demonstrating the effectiveness of advanced fluid management solutions in high-stakes manufacturing environments.

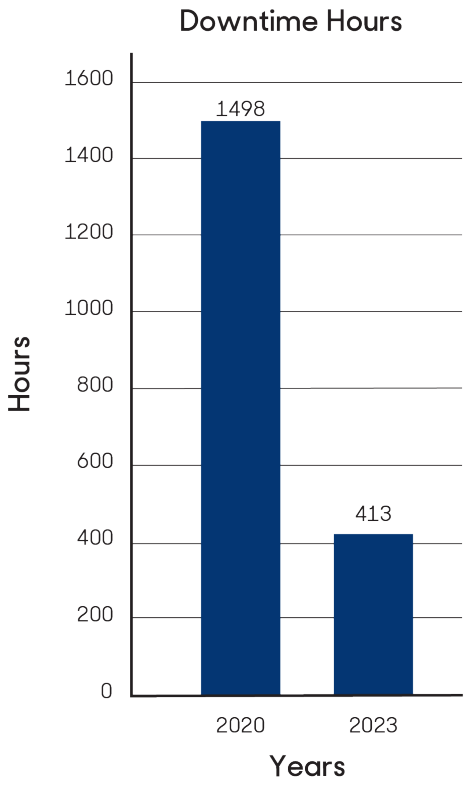



## QH FLUID INTELLIGENCE™

**Digitally optimizing fluids and processes.**
A fully digital and automated solution,
QH FLUID INTELLIGENCE™ provides real-time monitoring and control of fluid performance and cost, giving you quick, accurate, and actionable insights. Customizable, scalable, and easily integrated into your manufacturing, it enhances production and sustainability by driving down waste, risk, and total cost of ownership. This is the intelligent future of fluids.


Finished parts

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