

## Case Study

# Chemetall challenges old adage — “If it ain’t broke don’t fix it.”



### Chemetall has created a new adage — “Assume every manufacturing process can be improved.”

This case study has a unique focus — it highlights the importance of **proactive** work, not just for economic sustainability, but because the commitment to environmental sustainability reaches beyond technology and expertise, it requires teaching how to get there.

Working with a global wheel manufacturer, Chemetall gained a trial with **Tech Cool® 35718** metalworking fluid to run in their roll forming operation that produces light steel automotive wheels.

### Post test Tech Cool 35718 audit measurable results:

- + Decreased labor
- + Less raw material
- + Increased tool life
- + Significant increase in output without increase in consumables

### Significant improvement in sustainability!

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# Wheel manufacturer enjoys huge process improvement due to motivated experts

Jim Pinson, a Technical Sales Manager and one of Chemetall's experts, realized that a partnership between Chemetall and the wheel manufacturer could be of mutual benefit. The automotive industry is constantly evolving at an ever-increasing pace, especially with the growing prevalence of electric vehicles.

*Chemetall's commitment to sustainability goes further than responding to requests for expert assistance when there is an obvious manufacturing challenge. Chemetall management overtly encourages its experts to emphasize the importance of a sustainability audit even if there is no visible "problem", as solving the world's global environmental challenges are in everyone's interest.*

Working with Cyle Ward, Key Account Manager Metalworking and another Chemetall expert, Jim Pinson began to call on the local regional plant of this global wheel manufacturer. They had been with the same metalworking fluids supplier for 15 or 20 years and had doubts that Chemetall could improve performance and were hesitant to make a change that might negatively impact the process.

Jim Pinson began the development of a relationship, with persistence and tenacity, and eventually the first of what became a series of meetings with the wheel manufacturer was scheduled. Jim met with their EHS and Engineering teams multiple times and they eventually agreed to product test Chemetall's award winning **Tech Cool® 35718** metalworking fluid in their roll forming operation producing light steel automotive wheels. The stated goal was cost savings without compromising quality.



Before the product trial began, Chemetall conducted an audit of the production line which included laboratory analysis, to confirm that the recommended product, **Tech Cool 35718**, was the best choice for the application.

Jim Pinson had this to say, "I wasn't nervous as I had very high confidence that it would do well, and I knew we could save them cost and not just maintain but exceed their quality standards. I also knew that they hadn't yet fully realized that we were going to make such a contribution to their sustainability. They achieved noticeable increases in tool life, improved sump life, and reduced labor and maintenance."



**Achieving REAL sustainability requires analyzing "unbroken" processes**



*The test began on July 4, 2022 and ran for 250 days.*

## Post test audit results for Tech Cool 35718 metalworking fluid in roll forming operation of steel light-vehicle wheels.

	Labor Savings (Time)	Material Savings	Total Savings
Line 4	Reduce downtime per day = \$400	—	<b>Saved \$100,000</b>
Line 5	Reduce downtime per day = \$400	—	<b>Saved \$100,000</b>
New Roll Orders	—	<b>Moved from 6 months to 7 months</b>	Rolls are \$3200 each or \$9600 per set
Tooling Maintenance	—	Annual tooling budget \$150K to \$175K — <b>Increased tool life by 15%</b>	Saved \$22,500
DS Model	—	Old Lube ran 7,000 parts, <b>Tech Cool ran 11,000 parts</b>	
U625 Model 5593	—	Old Lube ran 8,000 parts, <b>Tech Cool ran 14,000 parts</b>	
Line 5 DT Model	—	Old Lube ran 3,000 parts, <b>Tech Cool ran 5,000 parts</b>	
Line 5 JL Model	—	Old Lube ran 5,000 parts, <b>Tech Cool ran 10,000 parts</b>	
Line 5 LAT Model	—	Old Lube ran 9,000 parts, <b>Tech Cool ran 15,000 parts</b>	

**Tech Cool 35718** is one product in Chemetall's line of metalworking fluids that improve productivity in automotive component manufacturing processes by increasing sustainability and reliability, and by actively reducing carbon footprints.

### Tech Cool 35718

- + High performance synthetic coolant
- + Formulated to provide superior detergency and cleanliness
- + Developed using a unique blend of anionic, cationic, and nonionic ingredients
- + Provides outstanding lubrication, superior cutting action, and is inherently stable
- + Contains corrosion inhibitors to protect both the machine tool and the substrates
- + Improve sump life, reduce maintenance, and increase ease of operation due to its superior cleaning ability



## Achieve progress in sustainability



Almost every manufacturer faces operational and market pressures that make sustainability an elusive target. Chemetall understands these challenges and will work with you to forge a new pathway through collaboration of achieving sustainability goals within manufacturing processes.

### Chemetall will help you:

- 1) Learn how to overcome obstacles to sustainability projects and goals.
- 2) Learn how to include and expand typical improvements in sustainability KPIs.
- 3) Understand a pathway to project management that will increase the capture of sustainability components.



Chemetall experts are original thinkers that can make the action of sustainability truly meaningful. Engineering holistic solutions involves more than just resource reduction but looking beyond the direct point to the upstream and downstream effects in a process analysis.

This involves the “mechanical”, which is to physically change the overall process, the “operational”, which can change the way a process stage is done, and the “chemical”, which is the use of technology to improve the outcomes.

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