

SARAMET® Acid Coolers



Few developments in sulphuric acid manufacture eclipse the importance of the **Worley Chemetics sulphuric acid cooler**. First introduced in 1967, Worley Chemetics' design for both anodically protected and SARAMET® acid coolers revolutionized the conventional acid cooling method, continuing to set the global standard for reliability and performance.

WORLEY CHEMETICS ACID COOLERS KEY BENEFITS AND EXPERIENCE

- Unparalleled reliability and longevity.
- It is common for Worley Chemetics' coolers to be in service for over 35 years.
- Market leading experience with 3,000+ coolers installed globally.
- Worley Chemetics was first to introduce silicon stainless steel (SARAMET®) acid coolers to the sulphuric acid industry in 1982.
- Exceptional corrosion resistance of SARAMET® in hot sulphuric acid.
- 100% of design and fabrication carried out at Worley Chemetics' state-of-the-art fabrication facility in Pickering, Canada.

ABOUT US

Sustaining our world for generations to come through technological and environmental innovation, Worley delivers Chemetics® sulphuric acid solutions around the globe with a focus on site reliability, plant economics and workforce development.

Over the past 60 years, Worley Chemetics' full lifecycle solutions and equipment have enabled more than 800 plants to achieve higher capacities and availability, lower costs of operation, reduced emissions and greater safety. Leveraging our R&D lab and custom-built fabrication facility in Canada, global logistics management capabilities, specialized project teams and worldwide network of trusted suppliers, we deliver optimal solutions and equipment for your sulphuric acid facility, from greenfield projects to maintenance and turnarounds.



GET IN TOUCH

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SARAMET® Acid Coolers

FEATURES & BENEFITS

Origins – Developed out of the need to improve plant reliability, the CIL cooler, as it was once known, revolutionized conventional methods of acid cooling. Benefits include uninterrupted operation, compact plant layouts, vastly reduced maintenance, greatly improved acid plant quality, and the ability to recover valuable low-grade energy.

SARAMET (Sulphuric Acid Resistant Austenitic METal) versatility – Available in SARAMET 23, 25, 35, HT™ and HT™+ and other alternative alloys. Grades are custom selected for each service to maximize performance and reliability while minimizing cost.

High mechanical integrity design – Worley Chemetics' manufacturing shop uses proprietary tubing specifications and weld procedures to ensure superior weld and overall product quality.

Full in-house design and fabrication – Worley Chemetics staff provide engineering, thermal and mechanical design, global procurement, fabrication and quality control to ensure optimal project schedule and product quality.

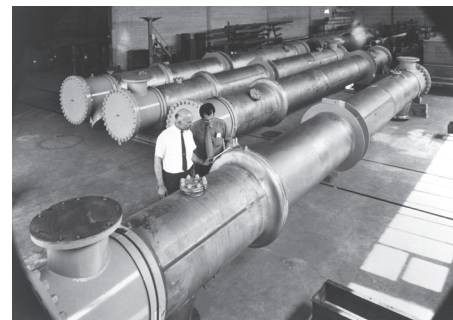
Worley Chemetics maintains a stock of SARAMET materials – Allowing for best industry pricing and delivery times. All SARAMET materials are made specifically to our specifications for this corrosive acid cooler service.

Install and forget you have it reliability – Often cited by operators as the most reliable piece of equipment in a plant.

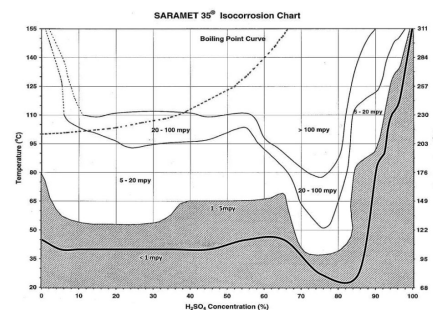
Client support – A full team of technical service representatives are available for site commissioning, troubleshooting and turnaround inspections.

Design Philosophy

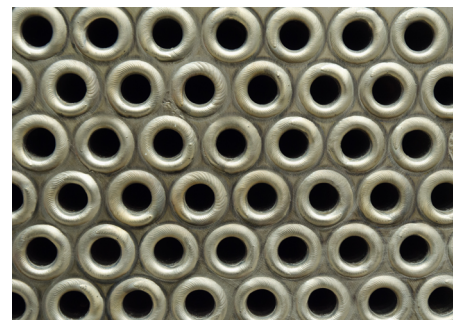
- Thermal and mechanical designs are optimized using Worley Chemetics proprietary design programs. These programs are constantly updated and refined to incorporate the latest field experience, producing coolers with maximum heat transfer capability and robust mechanical designs.
- Well-established proprietary thermal design philosophy enables the coolers to cope with even the most severe plant fluctuations.
- Baffle arrangements and tubing layouts are carefully selected to provide maximum operating flexibility.
- Cooling water velocities are selected based on water quality and extensive operating experience, reducing the risk of tubeside fouling or scaling.
- Cooler supports and piping connections are customized to match existing for ease of installation in retrofit applications.



Worley Chemetics (formerly, CIL)
Acid Coolers, 1967



SARAMET 35 Iso-Corrosion Curve
(the further below the line, the lower the actual corrosion)



Worley Chemetics Proprietary Tube
to Tubesheet Welding Technology



In stock supply of SARAMET®
acid cooler tubing and materials
enables quick deliveries



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