

Radial Flow Stainless Steel Converter



By providing **exceptional performance and reliability** on every acid plant installation since being first developed and patented more than 35 years ago, Worley Chemetics' Radial Flow Converters have become the design standard for the sulphuric acid industry.

KEY BENEFITS

- Demonstrated zero internal or external gas leaks for 30+ years.
- High strength 304H stainless steel with high reliability mechanical design allows minimum amount of stainless steel to be used.
- Highly uniform temperature across catalyst bed.
- Fully welded to eliminate gas bypassing.
- No pillars or posts allows easy access for catalyst installation/screening.
- Flexible design allowing interchange of beds and elimination of gas ducting to simplify new plant or retrofit designs.
- Designed to optionally accommodate up to two internal Gas-Gas heat exchangers and/or Superheaters in the central core.

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

chemetics.info@worley.com

Tel. +1 604 734 1200

WORLEY.COM/CHEMETICS

Radial Flow Stainless Steel Converters

FEATURES & BENEFITS

High mechanical integrity design – demonstrated zero external or internal gas leaks for 30+ years.

Radial gas distribution ensures uniform flow rates across the catalyst bed – longer catalyst life, less mechanical stresses, less catalyst required to achieve same stack emissions.

Fully welded construction including all catalyst supports and bed division plates – eliminates gas bypassing between beds and ensures higher mechanical integrity.

Curved catalyst supports and division plates – minimizes stresses well below metal limits during times of differential thermal expansion/contraction.

Round gas nozzles – eliminates stress risers and leaks, simplifies ducting design.

Internal gas-gas heat exchangers and/or superheaters – reduces cost, eliminates bed 1 hot gas ducting, eliminates main location of acid plant gas leaks, minimizes plant footprint.

304H stainless steel construction – good resistance to high temperature creep at the elevated temperatures in bed 1 and 2.

Shell and core structural design – eliminates pillars and posts, simplifies maintenance and catalyst installation/screening, ensures structural integrity.

DeNOx converter option – available to control NOx emissions in the plant.

Insulation/cladding – floating system specially designed for each converter accommodates repeated thermal expansion/contraction which increases system overall reliability.

Flexible Execution Strategy

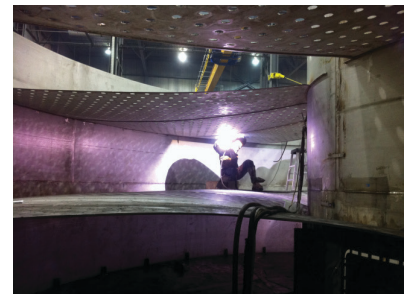
- Optimal for retrofits and new plant installations.
- Installed in Worley Chemetics licensed sulphuric acid plants as well as for other technology license providers.
- PDP/Basic Engineering package, Detailed Engineering, Equipment Supply or complete EPC supply.
- Ability to be manufactured in fully welded modular sections and shipped to site for final assembly to minimize site construction time and ensure optimal manufacturing quality.
- Project execution strategy optimized with the client for each project to minimize costs, shutdown time and utilize best resources remotely and near the client plant site.
- Worley Chemetics Process Engineers review and discuss current and future site requirements to ensure the converter design meets all plant needs during its long life.
- Worley Chemetics turnaround inspection engineers available to inspect equipment with customers' maintenance staff and ensure the long term integrity of their plant.



Fabrication of Converter Modules



Converter with Internal Superheater and Hot Gas-Gas Heat Exchanger



Converter Module Fabrication with Curved Catalyst Support Plates



Modular Converter Field Assembly