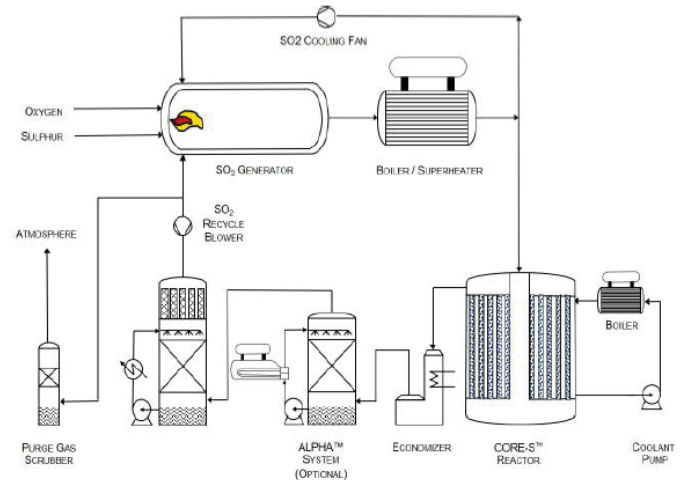
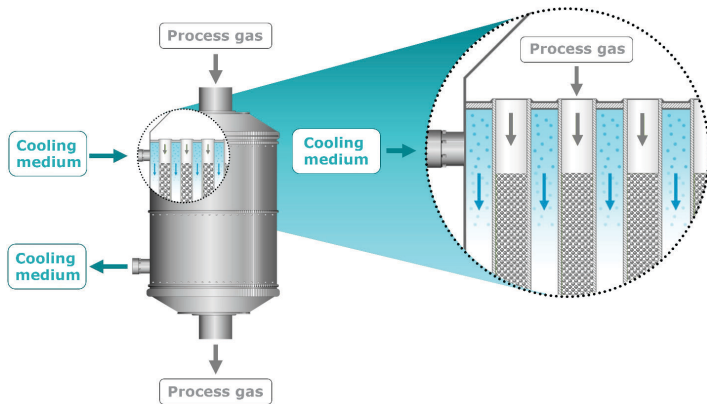


CORE-SO₂TM Process



SULPHURIC ACID TECHNOLOGY



CORE-SO₂TM sulphuric acid plant process **triples the maximum world scale plant size** while improving both the profitability and the environmental footprint of the plant.

KEY BENEFITS

- Reduction in plant CAPEX by 25% (including the cost of the O₂ plant)
- Maintenance costs reduced by 60%
- Stack SO₂ emissions reduced by more than 98%
- Single train capacity up to 13,000 MTPD of 98.5% H₂SO₄
- Modular designs to minimize field construction costs
- Valuable Nitrogen and Argon byproducts can be produced for enhanced profitability
- Lower cooling water consumption
- Net producer of electrical power
- Eliminates need for a large high pressure blower
- Return on Investment more than double the rate for DCDA plants

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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CORE-SO₂TM Process

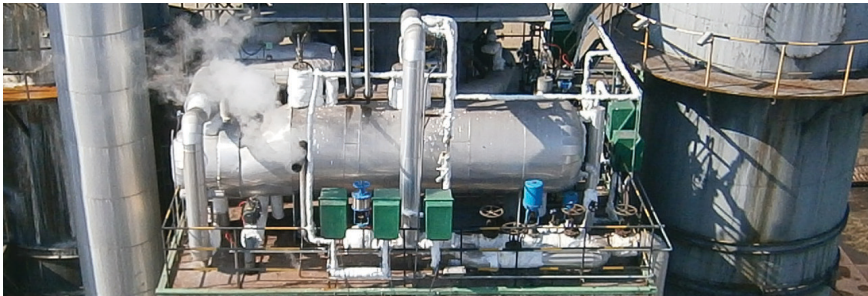
FEATURES & BENEFITS

The CORE-SO₂TM process combines the following well proven industrial processes into a new combined configuration:

Combustion of Sulphur with Oxygen - SO₂ is generated by the combustion of sulphur and oxygen in a standard furnace, at moderate temperature, controlled using a patent pending gas recycle. High Pressure (HP) Steam is generated in the boiler/superheater.

CORE-STM Converter - In industrial service since 2009. Uses active cooling to maintain catalyst temperature in the ideal operating window. Achieves high conversion of SO₂ to SO₃ in a single step. Unconverted SO₂/O₂ is recycled to the furnace achieving 100% utilization. Heat from the converter is used to produce additional HP steam.

CES-ALPHATM System - Recovery of waste heat from the absorption tower of a sulphuric acid plant to make MP steam has been installed industrially since 1984. CES-ALPHA generates 5 to 10 barg steam.



CES-ALPHATM system installed in 2015

Key Value to Sulphuric Acid Plant Owners

CORE-SO₂TM allows any size of sulphur burning acid plants to be built for lower capital investment, lower maintenance costs, lower operating costs and increased ROI.

Best available technology for minimizing sulphur emissions.

Industrial Applications

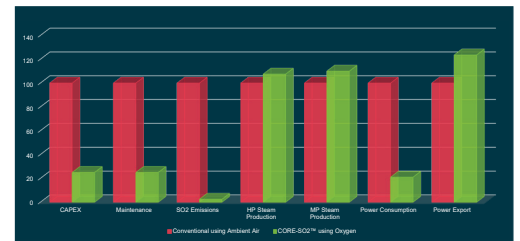
- Phosphate-based fertilizer production
- Sulphuric acid or SO₂ generation for nonferrous metal leaching
- Modular sulphuric acid plants for remote mine sites
- SO₃ production for sulfonation or chemical plants



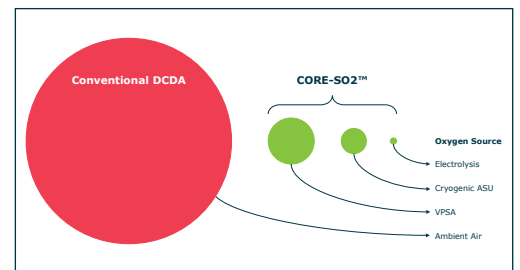
CORETM Tube Bundle Ready for Shipment



200 MTPD CORETM Add-On System Operating Since 2009



Comparison of CORE-SO₂TM to DCDA



Emissions comparison of CORE-SO₂TM to DCDA

