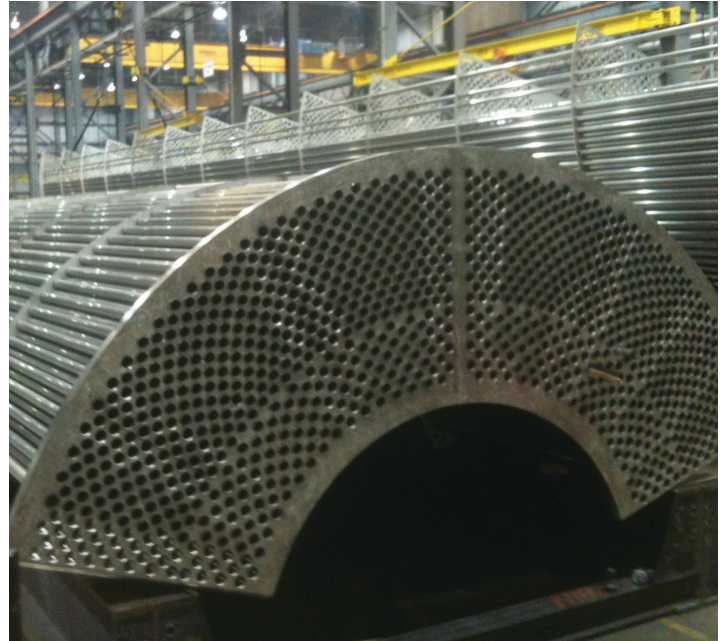


Radial Flow Gas/Gas Heat Exchangers



Transferring large quantities of heat from one gas stream to another using gas to gas heat exchangers is essential to the process of manufacturing sulphuric acid. With over 400 units installed since the Worley Chemetics (Chemetics®) development and patent in 1978, we have specialized in the design, engineering and fabrication of Gas to Gas Heat Exchangers.

FEATURES AND BENEFITS

- All exchangers incorporate a patented radial pitch tube layout arrangement.
- Disk and donut radial flow arrangement with no tubes in the central core.
- Stainless steel or carbon steel designs, depending on service.
- Thermal design and mechanical details eliminate sulphate buildup concerns.

GAS/GAS HEAT EXCHANGERS

We design and supply:

- Hot & Intermediate Heat Exchangers
- Reheat & Cold Heat Exchangers
- Preheat Exchangers
- SO₃ Coolers



GET IN TOUCH

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Radial Flow Gas/Gas Heat Exchangers

BENEFITS OF WORLEY CHEMETICS' DESIGN

DETAILS MATTER

- The radial flow tube layout significantly **improves the thermal efficiency** of the heat exchanger, resulting in smaller heat exchangers for a given allowable gas pressure drop.
- Most exchangers, even for larger plants, can be **fully shop-fabricated**, thereby guaranteeing high-quality tube to tubesheet joints.
- The radial gas flow pattern and disk and donut baffle arrangement minimize thermal stresses across the bundle by **eliminating variations in temperature** around the circumference of the heat exchanger.
- The disk and donut baffle arrangement allows **complete 360° freedom** to orient the exchanger nozzles to optimize ducting arrangements.
- The welded tube to tubesheet joints ensure **long and leak-free life** for all the exchangers.
- The free area at the core of the exchanger can accommodate exchanger by-pass ducts, thus **simplifying plant ducting** arrangements.
- The flexibility of the design can accommodate preheat exchanger configurations that are **suitable for all types of fuels**, including heavy fuel oil.
- By minimizing differential thermal stresses and providing designs to minimize or eliminate sulphate buildup, our exchangers often have **triple the lifespan** of other designs.



Worley Chemetics also specializes in the design, supply and installation of replacement gas/gas heat exchangers on existing plants.

The flexibility of the design enables most exchangers to be replaced with only minimum modifications to ducting and foundations.

