

# CATALYTIC OXIDIZER

## METHOD OF ABATEMENT

A catalytic oxidizer is a type of pollution control equipment, that is used to abate industrial exhaust streams, laden with volatile organic compounds (VOCs). Also known as a CO, CATOX, CTO, RCO, or CRO, a catalytic oxidizer works by raising the temperature of the exhaust stream to a point in which the chemical bonds that hold the VOC molecules together are broken (oxidized) across the precious metals from the catalyst media. The VOCs from the process exhaust stream are converted to carbon dioxide (CO<sub>2</sub>), water (H<sub>2</sub>O), and thermal energy. In a catalytic oxidizer, the operating temperature is substantially less than straight thermal oxidation, and when combined with a VOC loading level from the process stream, the system can become self-sustaining; often requiring minimal auxiliary fuel to support operation.



## ADVANTAGES

- As a result of the lower operating temperatures, a Catalytic Oxidizer generally uses less energy
- Lower operating temperature results in less NO<sub>x</sub>
- Flameless
- Requires less space than some other equipment options
- Lower operating emissions
- Efficiencies up to 99.99%
- Industry best commissioning times
- Eliminates as much or more than 99% of dangerous gases, which meets all EPA requirements for MACT, RACT, BACT, and LAER