Regenerative Thermal Oxidizer (RTO)

Most efficient oxidizer design and best suited for high volume low concentrations

RTO Description

• VOC-laden process air enters the RTO through the inlet manifold
• Poppet valves direct this gas into the first energy recovery chamber where it is pre-heated
• The VOCs are oxidized in the combustion chamber at a typical temperature of 1500°F
• The hot gas exits the combustion chamber through the second energy recovery chamber where the heat is absorbed by the ceramic heat exchange media
• Poppet valves direct this clean gas to the clean air stack
• The airflow is reversed by the poppet valves an average of every 120 seconds
• An optional VOC compensation or puff capture chamber may be added to accumulate the bypassed process air stream during the valve reversal
• The heat recovery efficiency of the system is up to 95%
• The VOC destruction efficiency of the system is typically 98%, 99% achieved with the addition of the optional VOC compensation chamber.

Product Features and Benefits

• Volatile Organic Compounds (VOC) destruction efficiency up to 99%
• Heat recovery efficiency up to 95% lowers fuel consumption
• Structured and random ceramic heat transfer media
• Standard two tower design is an economical solution for most air pollution control needs. Custom tower design available based on application
• Typical unit sizes - 1,000 to 100,000 scfm
• Skid mounted units up to 10,000 (scfm) offer cost effective and turnkey installation
• Quality components provide long life expectancy, reliable operation, and low maintenance
• Optional Features include:
  - Recirculation
  - Hot side bypass
  - VOC compensation (puff capture) chamber