



HOW TO PURCHASE AN RTO

HELPFUL GUIDELINES FOR
SPECIFYING & PURCHASING
AN RTO

TOPICS

BENEFITS
of Developing an
RTO Specification

ANALYZING
Regenerative
Thermal Oxidizer
Proposals

RTO
Components and
Guidance

CONTACT FOR ASSISTANCE IN SELECTING THE RIGHT OXIDIZER



BENEFITS OF DEVELOPING AN RTO SPECIFICATION

Documenting your process conditions and your business goals in an RTO specification will help ensure potential oxidizer suppliers will bid to the same baseline. Having easily comparable bids will simplify your proposal review process. It also will also help ensure:

- The RTO will be sized for the specific range of conditions expected now and in the future
- Only necessary oxidizer features will be quoted by suppliers
- Any RTO operating cost comparisons will be based on your specific operating conditions
- A clear project scope – oxidizer location, mechanical installation, wiring, piping, ductwork, and dampers desired

ANALYZING RTO PROPOSALS

Once proposals are received based on your RTO specification, the next step is evaluating the various proposed regenerative thermal oxidizers for suitability and long-term performance. What should be considered in the evaluation process? RTO systems and individual components should be evaluated.

INFO NEEDED FOR SPECIFYING AN RTO

- Process Description
- Airflow
 - (scfm, standard cubic feet per minute)
- Air Temperature (F)
- VOC Concentration: Normal
 - (lb/hr)
- VOC Concentration: Peak
 - (lb/hr)
- VOC Mix
- Particulate
 - (grain/hr; size, make up)
- Moisture Content
 - (% , RH)
- VOC Destruction Efficiency (DRE)
 - (%)
- Current Operating Schedule
- RTO Location/Ductwork
- Future Growth
- Visible Plume
 - (Yes/No)
- Process Sensitivity to Pressure Pulse
 - (Yes/No)
- Heat Recovery Desired
 - (Yes/No)



RTO COMPONENTS

- Main Fan
- Switching Valves
- Ceramic Media Bed
- Burner and Fuel Injection
- PLC Controls
- RTO Shell and Insulation
- Cold Face Support
- RTO Assembly
- Non-Technical/Subjective Considerations

GUIDANCE

Review the RTO components and overall system to differentiate one RTO system from another and allowing you to ask informed questions of each supplier.

The last item, Non-Technical/Subjective Considerations, is critical. Is the RTO manufacturer and their RTO design proven in your particular industry and application? If this criteria is met, then a more in-depth analysis of the proposal should be made.

One significant evaluation is the ceramic media bed design. The right ceramic media bed design can drastically improve reliability, fuel efficiency, and longevity of the RTO.

CONCLUSION

Successfully navigating the selection of your regenerative thermal oxidizer (RTO) from specification through proposal review does not have to be overwhelming. These simple checklists will help you build a well-thought-out RTO specification and also guide a methodical review of RTO proposals. With these checklists, your team – and any needed outside environmental engineering support – can assemble a clear, forward-looking plan for your current and future emission control needs. This specification then provides a solid baseline that RTO suppliers can quote from – and will thank you for – and it will ease your proposal review process. These checklists and guidelines are not all you will need, but they do provide high level maps to guide your efforts.

CONTACT FOR ASSISTANCE IN SELECTING THE RIGHT OXIDIZER

☎ (920)-883-6191 ✉ sales@konokogs.com 🌐 www.konokogs.com