



**Supplied Products:** MSB 100 Low NOx Burners (1000 kW), Pre-Assembled Gas Trains, Pre-Assembled Air Pipings, CE-Compliant Burner Control Cabinets, Combustion Air Fans with Noise Hood

**Application:** Regenerative Thermal Oxidizer

**End User:** Recycling Facility, Dortmund, Germany

**Heat Input:** 2 x 1 MW

**Project No:** 2023 - 63

**Date:** 23 July 2025

## The Challenge

Back in 2023, one of our RTO producer customers required a robust and reliable burner system to safely burn methane (CH<sub>4</sub>) emissions while ensuring stable operation under high RTO backpressure, wide turndown flexibility, compliance with EU Low NOx & CO regulations and easy PLC integration.

## Our Solution

YETEN Combustion supplied 2 sets of 1 MW complete turnkey burner packages, fully pre-assembled and factory-tested to minimize commissioning risks. On-site commissioning by our team on July 2025 included fuel-air ratio optimization and training for the customer's staff.

## MSB 100 Low NOx Velocity Burners - 1000 kW

2 sets of YETEN MSB 100 burners are used for this application. With their high flame velocity, MSB Burners circulate the RTO inside atmosphere and pull inert gases to the reaction zone. As a result, local high temperatures are avoided, NOx & CO emissions are reduced and uniform temperature distribution is achieved.



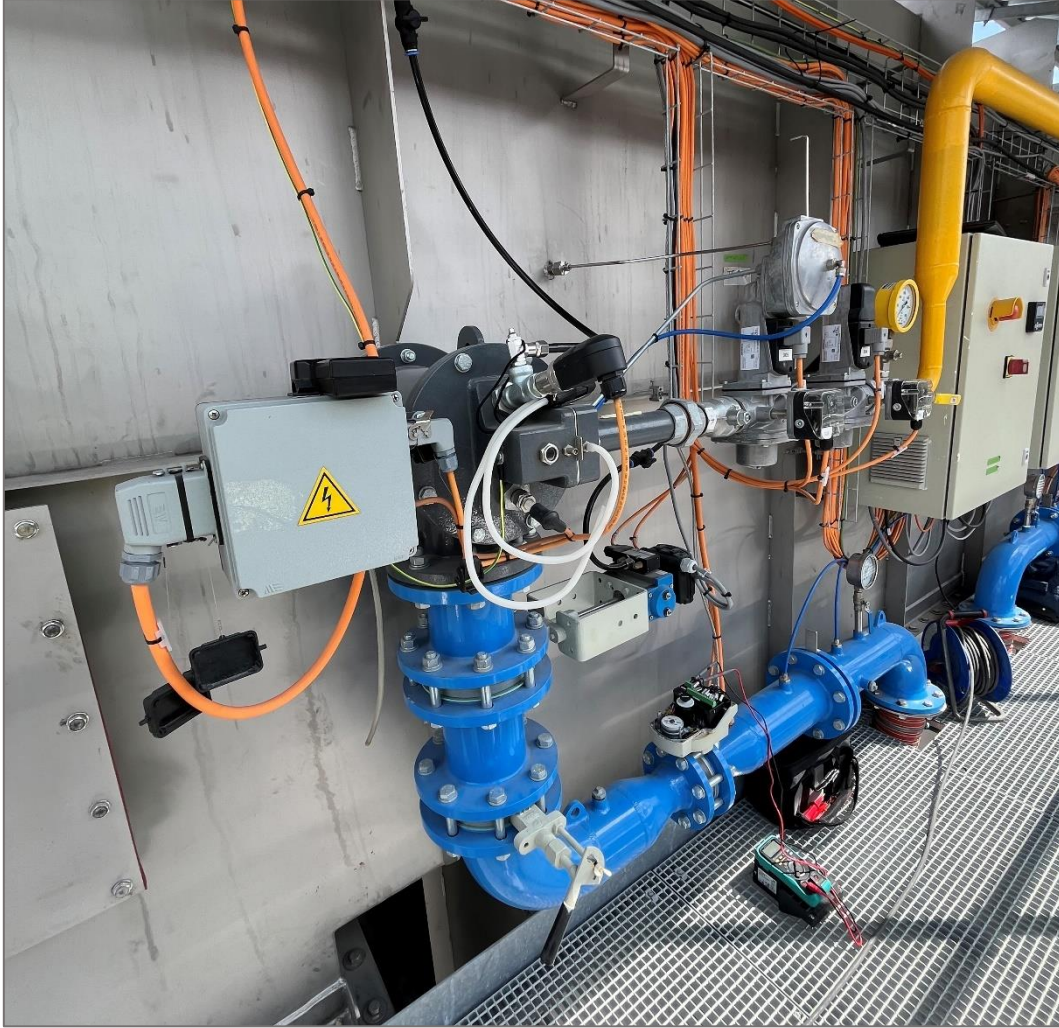
## Dedicated Testing Facility - Proven Before Shipment

Every burner and combustion safety chain item is tested in our in-house burner test facility. This includes ignition, turndown, safety devices, interlock checks, and combustion analysis, ensuring systems arrive ready to run. Check out our testing setup below.



## Field Safety Tests & Acceptance

Beyond factory testing, all systems underwent on-site combustion safety tests together with the independent expert appointed by the end user. After successful validation, the system was officially approved for gas admission and operation.



## Advantages

- ✓ Fast installation, pre-assembled systems minimized on-site work.
- ✓ Reliable performance, stable burner fuel/air ratio under changing RTO inside pressures.
- ✓ Verified & accepted, systems passed both factory and field expert tests,
- ✓ Safe operation, system design acc. to ISO 13577-2 combustion safety standards.
- ✓ Environmental compliance, low NOx & CO emissions confirmed.
- ✓ Smart integration, BCU connected via profinet to end-user's system.

## IP 66 Instruments for Outdoor Conditions

All gas train instruments are chosen with IP 66 protection rate, so they can withstand outdoor conditions.

## Combustion Air Fans with Noise Hood

Combustion air fan is equipped with a noise hood which reduces the noise level below 80 dB, ensuring a quiet and efficient combustion process. This feature not only protects the fan from outdoor conditions but also provides a more comfortable working environment on site.



## Conclusion

This project highlights YETEN Combustion's ability to support RTO manufacturers worldwide by delivering fully tested and officially validated burner systems. From factory pre-tests to field expert approvals, YETEN guarantees performance, safety and compliance.