

Combustion Review according to the latest standards

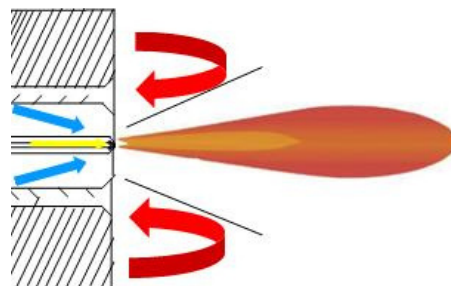
Combustion Review

In thermal processing plants or boiler plants for steam or hot water generation, the burner system represents a central component for smooth and safe operation.

Particularly in the standardization of burner systems, several new standards have been introduced in recent years, such as ISO EN 13577, the EN 12952/12953 series, and EN 50156-1.

For existing installations, this means that burner systems must be re-assessed and inspected to demonstrate compliance with the current state of the art.

A burner system comprises not only the burner itself, but also the valve and fitting system with its valves and field devices, as well as the piping system and the functionally safe control system. If modifications are made in this area, it is essential to verify that the original or newly planned design and safety functions meet the requirements of applicable laws, guidelines, and standards.



Scope of services

The Combustion Review consists of an inventory and a subsequent evaluation, including recommendations, by experts in combustion and functional safety.

The inventory is conducted through a site visit with the operating personnel and a checklist-supported interview based on the plant and operating documentation.

For the subsequent evaluation, the existing as-built design documents for the burner system, such as piping and instrumentation diagrams, process descriptions (if applicable), equipment documentation, and test records, must be provided.

SERVICE FACTS

Combustion Review

The following will be examined:

- Current state of equipment compared to the P&ID diagram
- Condition of fittings and equipment on site
- Conformity of fittings and equipment
- Conformity of the burner system to current standards
- Operational sequence of the burner control with regard to safety-relevant processes

Inspection of combustion behavior, if the flame can be observed via sight glasses or cameras.

As a result of the inspection and subsequent analysis, a report will be prepared documenting the condition, providing assessments regarding safety and availability, and describing potential savings or improvements.

Procedure

The interview/audit can be conducted on-site during the site visit and/or remotely.

All images and information collected during the site visit will, of course, be treated confidentially and used only for the intended purpose.

- 1-2 days site visit
- 3-4 days evaluation and report preparation
- 0.5 days final meeting with all relevant customer employees.

The above scope refers to a combustion system with up to 3 burner types. The additional costs for a system exceeding this can be determined upon request.

Further possible steps

- Inquiry specifications and request
- Offer and delivery of a complete burner system
- Burner optimization with regard to energy consumption or emissions
- Conversion to a different fuel or expansion

Contact

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For more information about our consulting services, please visit us at www.hima.com

Norms and Standards

The Combustion Review takes into account the following standards:

EN 298
EN 60730
ISO 13577 -2 -4
EN 746-2
EN 676
EN 267
EN 12952
EN 12953
EN 12067-2
EN 50156
EN 62061
EN /IEC 61508
EN / IEC 61511
NFPA 85 / NFPA 86
NBR 12 313 (Brasil)

Guidelines and regulations

Machinery Directive 2006/42/EC
Machinery Regulation (EU) 2023/1230
Pressure Equipment Directive 2014/68/EU
Gas Appliances Regulation (EU) 2016/426

Pricing

• Basic fee of 9.340 Euro* for the defined scope:

- Including preparation, interviews, meetings and reporting.
- Excluding travel expenses and accommodation
- Successful processing depends on the availability of customer documentation and the responsible staff; any additional time required will be charged according to the applicable daily rates.

*The stated price is only valid within Europe..