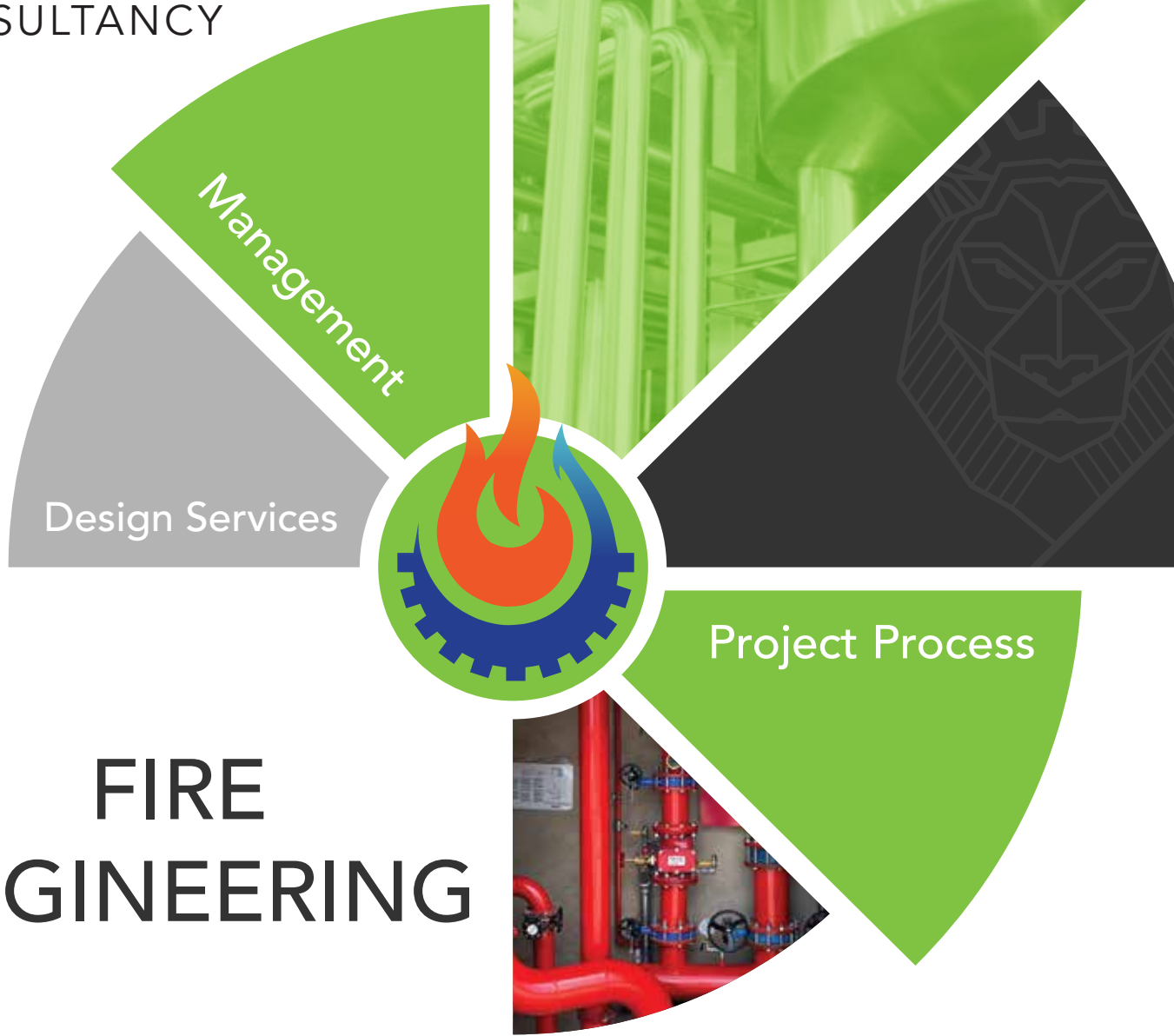


PROFESSIONAL  
ENGINEERING  
CONSULTANCY



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## WHAT IS FIRE ENGINEERING?

Fire Engineering is the application of scientific and engineering principles, rules, codes, and expert judgement, based on an understanding of the phenomena and effects of fire and the reaction and behaviour of people to fire – to protect people, property, production, and the environment from the destructive effects of fire.

## FIRE DESIGN SERVICES

- Fire Rational Design
- PrEng Approval with Regulatory Department Approvals
- Fire safety system Engineering Audits
- Scoping and Project planning for the Fire detection, Fire Protection and/or Suppression, Performance based design, Emergency Evacuation/Escape routes, Extinguishing, Smoke Extraction/ventilation and Mandatory signage
- Coordination with other Design Disciplines
- Approval by Insurance Risk Team





# OUR APPROACH

## AFROTEC APPROACH:

At Afrotec we value our clients needs, risks and requirements. We offer professional consulting services in fire engineering. Industries we specialize in include:

- **Industrial sector** – Pulp and paper, Mining Sector, Timber, Chemical Processing, Factories
  - Adhere to ASIB and NFPA on each application to their needs.
- **Building sector** – Complexes, Housing Estates
- **Commercial sector** – Retail, Warehouses, Hospitals, Schools
- **Agricultural sector** – Packhouses, Warehousing, Processing Facilities

### **FIRE** – Engineering, Rational Design & PrEng Approval

- Analyzing and Designing Fire protection systems for industrial, mining, residential, commercial, large offices, hospital theatres, lecture rooms, health clinics, laboratories and schools in accordance with SANS 10400-T, ASIB and/or NFPA standards.

### **HVAC** – Heating Ventilation and Air Conditioning

- Analyzing and designing fresh air and extract air systems of industrial, mining, residential, commercial, factories, kitchens, hospital theatres, schools and offices to comply with the South African National Standards (SANS), provincial Government Health Standards and the Occupational Health and Safety Act.



# PROJECT MANAGEMENT

**Project Management** – in accordance with PMI® PMBOK guidelines

- Project leader - Ensure that there is proper communication between various stakeholders within the project so that the correct equipment is ordered, installed and commissioned.
- Project planning - Determine whether existing mechanical plant or equipment is sufficient to implement new components to be efficient and cost effective.
- Estimating, (cost estimates) - Before a project is started, cost estimates are developed based on preliminary designs, to get an idea of what equipment and installation works will cost.
- Scheduling - Several projects running in parallel requires proper time management, to ensure successful and timeous delivery of each project.
- Quality control of scope delivery - Ensuring design specifications have been met.

## PROJECT PROCESS

**Once projects have been designed to suit the specific requirements, tender documents are prepared:**

- Compiling Bill of Quantities
- Preparing tender documents in different forms of contracts
- Evaluating tender results
- Assist with Awarding project to adequate tenderer
- Meetings / Management
- Meetings are attended to ensure all processes are carried out within to the project timeline
- Installations of equipment are inspected and coordinated during the project
- RFI, Valuations, Site Instructions are given once required





## FIRE SYSTEM COMPLIANCE AND AUDITING:

We offer a compliance and auditing service to give a report based on existing installations, current needs and future expansions to comply with SANS, ASIB and NFPA.

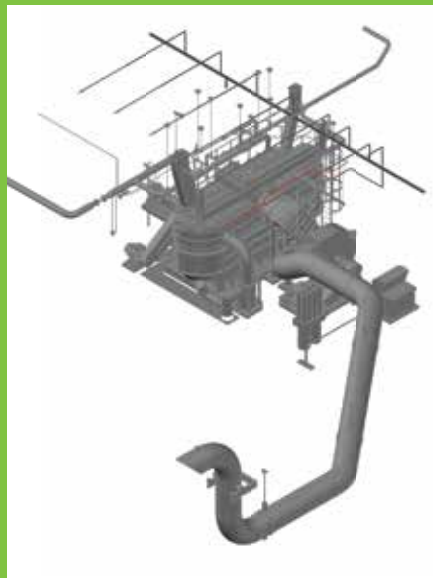
## RATIONAL FIRE DESIGN:

A fire rational design includes the following by applying SANS codes and standards, ASIB regulations, NFPA codes, Local authority by laws, National building regulations Part A, T, W, Occupational health and safety regulations, as well as Building regulations and Building standards Act:

- Fire protection
- Fire detection
- Fire suppression
- Sprinkler protection
- Emergency evacuation
- Rational design report
- Smoke ventilation

All rational designs are in accordance with BS7974, where a competent person demonstrate that due diligence has been applied during the design process.

Industrial sector: Applying codes and standards according to SANS, NFPA and ASIB



AFROTEC HAS SUCCESSFULLY CONSULTED ON  
PROJECTS IN VARIOUS COUNTRIES IN AFRICA.

## CONTACT

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SCAN TO SAVE CONTACT INFORMATION.

