



COMBUSTION WITHOUT COMPROMISE

CASE STUDY

FOOD & BEVERAGE · SOUTH AFRICA

COAL TO GAS BOILER CONVERSION

South African Breweries (SAB) with Combustion Technology Ltd · Rosslyn, Pretoria

BURNER

Limpsfield LC44 / LC88 / LC200

FUEL

Natural gas & biogas

INSTALLATION

Indoor · SAB Rosslyn, Pretoria

32%

ENERGY SAVINGS, YEAR
ONE

+13%

BOILER EFFICIENCY
INCREASE

3% O₂

ACROSS THE COMPLETE
FIRING RANGE, <10PPM
CO

**128,000
hL**

WEEKLY BREWING
CAPACITY AT ROSSLYN

01 THE CHALLENGE

Between 2012 and 2013, SAB Rosslyn, the largest brewery in the southern hemisphere, ran an aggressive programme to cut its carbon footprint and reduce emissions, converting two coal fired boilers to gas and adding two new gas fired boilers to meet growing demand.

- Two John Thomson boilers still running on coal, driving high emissions
- Increasingly strict air quality regulations to meet
- Boiler house noise levels in need of improvement
- Plant needed to react quickly to a weekly capacity of 128,000 hectolitres



ON SITE

Limpsfield LC200 burner on a converted boiler at Rosslyn

South African Breweries (SAB), the Rosslyn factory is the largest brewery in the southern hemisphere, weekly capacity 128,000 hectolitres, and is now part of AB InBev's African Budweiser production.

02 THE IMPACT

Fuel and energy costs fell 32% in the first year, with boiler efficiency up 13%. Every burner runs at 3% excess oxygen with less than 10ppm CO across the complete firing range, backed by Limpsfield's performance money-back guarantee, the only burner manufacturer to offer this across the complete firing range at 3% O₂.

- Consistently meeting air quality regulations
- Quieter boiler house thanks to the air inlet silencer
- 3% O₂ levels across the complete firing range with <10ppm CO
- New plant reacts quickly to load changes and allows easy maintenance

03 THE SOLUTION

Working with Combustion Technology Ltd, Limpsfield supplied an LC200 burner and two LC88 burners for the new natural gas boilers, and a dual fuel LC44 burner running on natural gas and biogas for the converted units. An air inlet silencer was fitted to reduce boiler house noise.



AFTER

Limpsfield burners in the Rosslyn boiler house

LIMPSFIELD LC200 BURNER

New natural gas boiler, 3% O₂ across full firing range

2 × LIMPSFIELD LC88 BURNERS

New natural gas boilers, <10ppm CO

LIMPSFIELD LC44 BURNER

Converted boiler, dual fuel: natural gas & biogas

BEYOND ROSSLYN: AB INBEV'S RENEWABLES PUSH

Rosslyn is now positioned as the home of Budweiser in Africa, and all electricity for Budweiser produced there is renewable, supported by a 1MWp on site solar array generating around 1.4 million kWh a year, plus an engineered cogeneration project. SAB and AB InBev have set a target to power African manufacturing from 100% renewables; the biogas fired LC44 that Limpsfield already delivered fits directly into that story.

For more information on the Limpsfield burner range, please contact your tech centre or Limpsfield direct.

Website www.limpsfield.co.uk

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