

Tomotex partners with Combustion Technology: Over 30% fuel savings achieved with advanced boiler upgrade



Boiler room after upgrade and installation.

WHEN Tomotex, one of South Africa's premier textile and apparel manufacturers, needed a reliable, efficient, and cost-saving boiler solution, they turned to industry leaders, Combustion Technology. The result? A seamless boiler and burner upgrade that has already delivered fuel savings exceeding 30%, along with significant improvements in plant safety, reliability, and operational control.

A trusted name in textiles

Operating since 1999, Tomotex supplies high-quality fabrics and apparel to retailers nationwide, specialising in sustainable and ethically sourced materials. Their commitment to eco-friendly production and operational efficiency is matched by their need for reliable, energy-conscious infrastructure to maintain competitive pricing and quality output. However, the company's existing boiler system had become a growing concern. The ageing 10T boiler was riddled with persistent leaks, high maintenance demands, and no modern control or modulation capabilities - a dangerous, costly, and inefficient setup threatening both safety and productivity.

The challenge: Safety risks and soaring costs

With growing risks of downtime and safety incidents - and excessive fuel consumption pushing operational costs sky-high - Tomotex management made the strategic decision to invest in a full boiler system upgrade. After an extensive review process, Combustion Technology was appointed to deliver the

solution, thanks to its nearly 40 years of expertise, comprehensive end-to-end service, and cutting-edge combustion solutions.

The solution: Tailored engineering excellence

The project, awarded in January 2025, involved a complete removal of the old, leaking boiler system and the installation of a state-of-the-art Heavy Fuel Oil (HFO) boiler and burner system.

The key components included:

- I.VAR BHP 4000 Steam Boiler – providing robust, reliable, and efficient steam gen-

eration tailored to Tomotex's process demands.

- Limpfield LCHO 30 Dual Fuel Burner – delivering exceptional combustion efficiency, reduced emissions, and flexible fuel capability.
- Autoflame MK8 MM Boiler Management System – offering 24/7 monitoring, real-time combustion tuning, fault detection, and performance analytics.
- Custom-Built Control Panel with Vortex Cooler – designed for high-temperature environ-

ments, ensuring system longevity and reliability.

Through expert system design, precise installation, and rigorous commissioning, Combustion Technology ensured the new solution delivered on every goal: improved safety, energy efficiency, control accuracy, and environmental compliance.

Real, measurable benefits

The numbers speak volumes. Since the upgrade, Tomotex has reported:

- Over 30% savings in fuel costs.
- Reduced water consumption.
- Improved steam output consistency.
- Enhanced plant safety and reduced risk of unplanned downtime.
- Empowered their boiler operator with a remote access and data-rich system diagnostics.

Sean Thompson, owner of Tomotex, confirmed the benefits: "Combustion Technology have been brilliant. The numbers don't lie. We've saved 30% on water and fuel alone. Our boiler manager now spends half the time in the boiler house thanks

to the remote Boiler Management System. It's transformed the way we work and we can see the savings every week."

Dom Viola, boiler house manager, added: "Before, we battled constant problems with the old boiler - leaking tubes, high costs, inefficiency. Since the upgrade, I have complete control over what's happening in my boiler room. I can monitor performance from anywhere, plan maintenance properly, and I'm already looking at more ways to optimise the system. Combustion Technology empowered us to save more and do more."

Combustion Technology's commitment

Tracey Bouah, general manager of Combustion Technology, reflected on the success of the project: "This was a fantastic project for our team - full of energy, collaboration, and positive problem-solving. From day one, we made it our mission to keep Tomotex's operations running smoothly without disruption. Our engineers worked relentlessly - even through unexpected challenges - to deliver the best possible result. The excitement and enthusi-



Junior service technician Nick Hass (left) gains valuable hands-on experience alongside Tomotex boiler plant manager Dom Viola during the installation of the new Limpfield burner and Autoflame controls.

asm across both teams made this project truly rewarding."

A sustainable, cost-saving future

This project has set a new benchmark in South African boiler plant optimisation and management through smart, modern upgrades. By replacing ageing infrastructure with a custom-engineered, energy-efficient solution, Tomotex now benefits from reduced costs, improved environmental perfor-

mance, and enhanced operational control - all while remaining committed to sustainable production.

Combustion Technology once again proves why they are South Africa's leading partner in industrial boiler and combustion solutions, delivering innovation, reliability, and savings where it matters most.

For more information: www.combustiontechnology.co.za

Steinmüller
africa



BILFINGER

Steinmüller Africa (Pty) Ltd. is one of the enterprises in Bilfinger Power Africa (Pty) Ltd., the South African subsidiary of German based Bilfinger. Our presence in the local market, spanning 53 years, is testimony to our unrivalled expertise in the steam generation industry. Services offered range from the design and manufacturing to the construction and maintenance of boiler pressure parts. At our South African based manufacturing facilities, we also specialise in fabrication of high-pressure feedwater heaters, pressure vessels, pipe supports and compensators. On-site maintenance crews provide support to the power generation and petrochemical sectors.

www.steinmuller.bilfinger.com

- Engineering design services ■ Boiler pressure parts
- Commissioning, field and testing services ■ Bellows
- Headers ■ Induction bending of HP/HT piping
- Heat treatment (workshop and in situ) ■ HP Heaters
- Piping technology ■ Pipe supports
- Plant erection services ■ Explosive welding

WE
MAKE
POWER
WORK