



# Reburning with hydrogen ready burners at a food manufacturing facility

Helping a food manufacturer achieve fuel savings of 13.5% and reduce electrical energy consumption by 60% with a hydrogen ready solution

## The problem







- Our customer was suffering from depleting energy efficiency from their 45 year old 16 tonne twin furnace steam boilers
- With NOx levels at 130mg/ Nm3, changes were needed to achieve better efficiencies
- To goal was to reach less than 80mg/Nm3 in NOx emissions



## Our approach

We offered a turnkey solution: a fully modularised plant room built at our facility in Rochdale, transported, then installed on site within 5 days.



<p><b>1 - Design</b></p>  <p>In house engineering design team</p>	<p><b>2 - Manufacture</b></p>  <p>Manufactured at facilities in Rochdale</p>	<p><b>3 - Test</b></p>  <p>Full factory acceptance test</p>
<p><b>4 - Deliver</b></p>  <p>Modules transported to site</p>	<p><b>5 - Install</b></p>  <p>Full installation by our team</p>	<p><b>6 - Commission</b></p>  <p>Finalised by our engineers on site</p>

# Our solution



## Full burner and control system retrofit

2 TDG6 hydrogen ready burners with o2 trim, boiler control, boiler sequencing and water level control



## NOx reduction without FGR

Reduction in NOx levels to 72mg/Nm3 at 3% without requiring FGR



## Hydrogen ready solution

Flexibility to run their plant on any combination of natural gas and hydrogen.

# Benefits



13.5% fuel savings



60% less electrical energy consumption



Reduction of CO breakpoint to ~0.5%

# Customer feedback

“Dunphy have been brilliant from start to finish. This is a huge step forward for us and gives our plant the flexibility to run on a wide range of fuels - we’re delighted with the solution and the excellent service provided”

**Engineering Manager, Food Production Plant**

# Get in touch



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