



# JWC International®

## SUCCESS STORY



Project Name: Lundwood STW

Project Description:

Lundwood STW utilises Combined Heat & Power (CHP), in which digested sludge is used to produce power to operate the treatment works. Grinder technology has been incorporated to optimise this process.

Contact Info:

Alan Fletcher  
Yorkshire Water Services  
Lundwood STW

Site Address:

Lundwood STW  
Lund Lane  
Lundwood  
Barnsley

Competitor Info:

None, JWCI preferred due to previous Yorkshire Water successes

**APPLICATION DATA:**

Flow Capacity:

20 l/s Digested Sludge

D.S %:

Upto 4%

Motor Size & Protection:

4.0kW Fitted with Anit-Condensation Heaters & Thermistors

Unit Model Number:

30004T-B150-DI

Serial Number:

106768-1-1

Special Features:

YWS Special Controller supplied in accordance with current YWS specifications.



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Sewage treatment works can extract energy from sludge while processing it, the process involves CHP engines modified to burn biogas. The CHP engines can then generate electricity which can cut plant fuel bills, and even earn money for the operator through a renewable energy scheme.

Lundwood STW processes sludge containing organic matter, grit and rags, the sludge is taken from the various on site tanks and also from imported sludge by tanker discharge.

Grinders are essential to the CHP sludge transfer process as they ensure the pumps run continuously. There is also benefit's in the digestion tanks, heat exchanger & centrifuges as a grinder ensures a uniform particle size is passed through.



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With the help of the Muffin Monsters the site CHP target is to achieve £450 / Day of power. Before the grinders were installed production was lost due to numerous pump blockages.

If the site does not produce the £450 each day of power then they have to purchase the power from the grid. The continuous protection has generated £90,000 in revenue, giving a payback within months ensuring that the grinder installation has been self financing.



The pump suction inlet was handed to allow a feed from a common line. By turning the pump through 180 degrees and extending the suction pipe work, we ensured independent grinding and pumping. The plant has gone from zero to five grinders within six months due to the success of the initial installation.

A 3D concept drawing was completed to show YWS how the final design will look and operate. The 3D drawings clearly shows the inlet of pump 2 handed 180 degrees and the pipe work modifications. The 3D models can be used in sales meetings to show the customer how his finished installation will look. Also with the 3D models animations can be created to show maintenance procedures, for example the inline Muffin Monster could show the removal and installation of a replacement cutter cartridge.

The 3D models can be produced for all quotations and orders, when requesting please provide full Auto CAD drawings.



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