



Sustainable Heating with

WOOD ENERGY SCOTLAND

Lanarkshire Biomass Fact Sheet Calderhead High School

Dyfrig Street, Shotts,
Lanarkshire ML7 4DH

Boiler: Fröling Turbomat 500kW

Woodfuel specification: W50/G50



SCOTTISH EXECUTIVE



Facts and figures

Boiler output	500kW
Size of fuel store	112.5 metres ³
Fuel use	310 tonnes p/a
CO ₂ savings	256 tonnes p/a
Capital costs	£244,405
Grant aid	£169,867



Raw Material

Must be composed of clean, untreated wood products and co-products from the agricultural, forestry and timber processing sectors, and be free of contamination. Expert advice must be sought before using material from other sources.

Particle Size

Chipped woodfuel should be provided according to the G50 grade as set out in the table below:

Parameter	Measurement	G50
Max cross sectional area	cm ²	5
Max length (long thin material)	cm	12
Coarse material (max 20%)	Retained by sieve mesh width (mm)	31.5
Main material (60 – 100%)	Retained by sieve mesh width (mm)	5.6
Fine material (no dust max 20%)	Retained by sieve mesh width (mm)	1
Dust (max 4%)	Passing sieve mesh width (mm)	1

Fuel store and fuel handling: blockwork fuel hopper 5 x 5 x 4.5 (h) steel lid 3 x 3; hydraulic lift spring outfeeder to boiler feed screw

Estimated annual fuel requirement: 210 tonnes @ 25% mc

Estimated max daily fuel use: 7m³ @ 25% mc

Expected maximum tariff: 18.00 £/MWh

Expected maximum Operation & Maintenance rate: £2,750/annum to include for attendances

The above tariffs are purely estimates, and are yet to be ratified in the relevant Wood Heat Supply Agreement.

Boiler Maintenance Schedule

Interval	Task	Action
Daily	Daily visual inspection and check of key parameters recommended but not essential	NO
Weekly	Check motors for oil leaks; empty ash boxes (3 no); check system pressure	NO
Monthly	Check and clean grate and combustion chamber with vacuum	YES
Quarterly	Clean flue gas sensor and lambda probe	YES
6-monthly	Check ash and fuel feed drives, air flap servo motors and door switch; check and clean heat exchanger	YES
Annual	Annual inspection and service	YES
Allowance for call-out within fixed price	Six times per annum	YES