



HEAT & POWER

BIOMASS BOILER HEATING SYSTEMS



RAINBOWHEATANDPOWER.CO.UK



01

5 YEAR WARRANTY

The complete boiler including all electronic controls and wearing parts.

04

INDUCED DRAFT FAN

Generates negative pressure in the combustion chamber and ensures the highest levels of reliability and safety.

02

PATENTED BURNER SYSTEM

For consistently clean combustion.

05

SELF CLEANING HEAT EXCHANGER

Automatic cleaning maximises heat transfer. No build-up of efficiency reducing deposits.

03

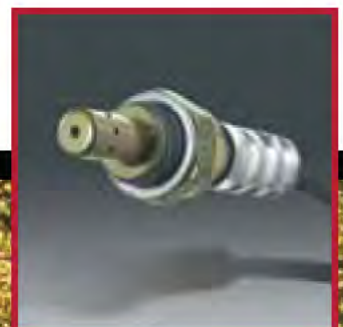
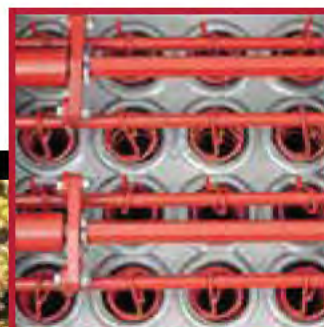
COMBUSTION CHAMBER TILES

Robust silicon carbide tiles are wear resistant and replace conventional fire bricks.

06

LAMBDA CONTROL

Ensures optimised combustion and the cleanest burn.



30-250kW



07

OPTICAL MONITORING

For reliable combustion monitoring.

08

SUPPORTED DRIVE TORQUE MOTORS

Direct drive – no chains or gears to break or snap.

09

DISCHARGE AUGER CONTROL SENSOR

Features energy saving mode for low power consumption.

10

RESILIENT FUEL DELIVERY SYSTEM

Sealed bearings for low maintenance.

11

TWO-PIECE AUGER CHANNEL

For easy maintenance, the agitator box lid is separate to the auger channel.

12

ELECTRONIC CONTROL

Modular control, of up to 16 heating circuits, timers and thermostats.



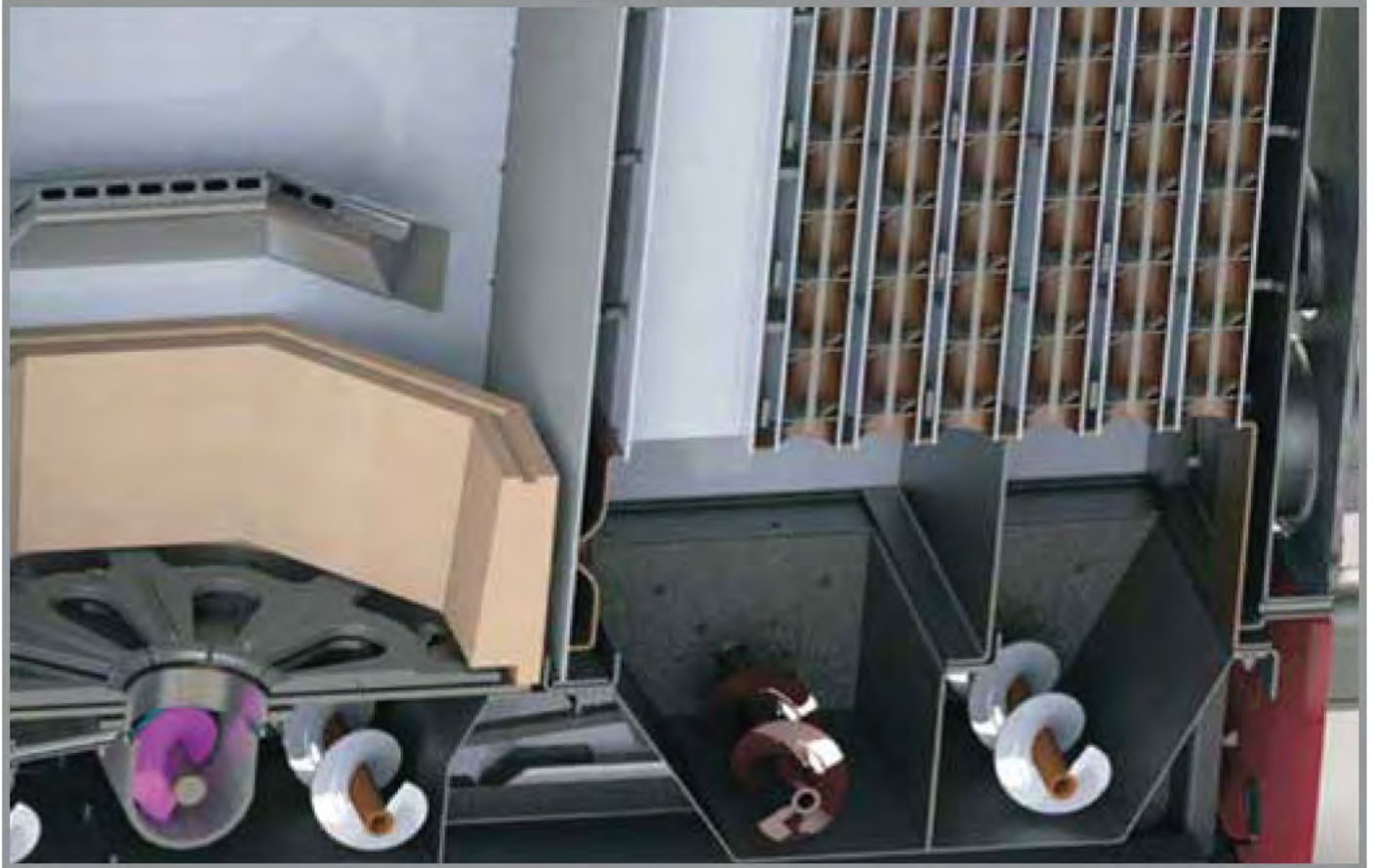


SL199-250kW

- Up to 250kW with a single unit, can cascade multiple units up to 1,000kW.
- Heating efficiencies of over 95%.
- Heat exchanger features 6 rows of vertical, tubular cylinders. These enable multiple passes of hot flue gas and are automatically cleaned by turbulators to give high efficiencies.
- Automatic ash removal into an external 240 litre container on wheels as standard.



HEAT EXCHANGER FEATURES 6 ROWS OF VERTICAL CYLINDERS



**CROSS SECTION
OF AUGER**



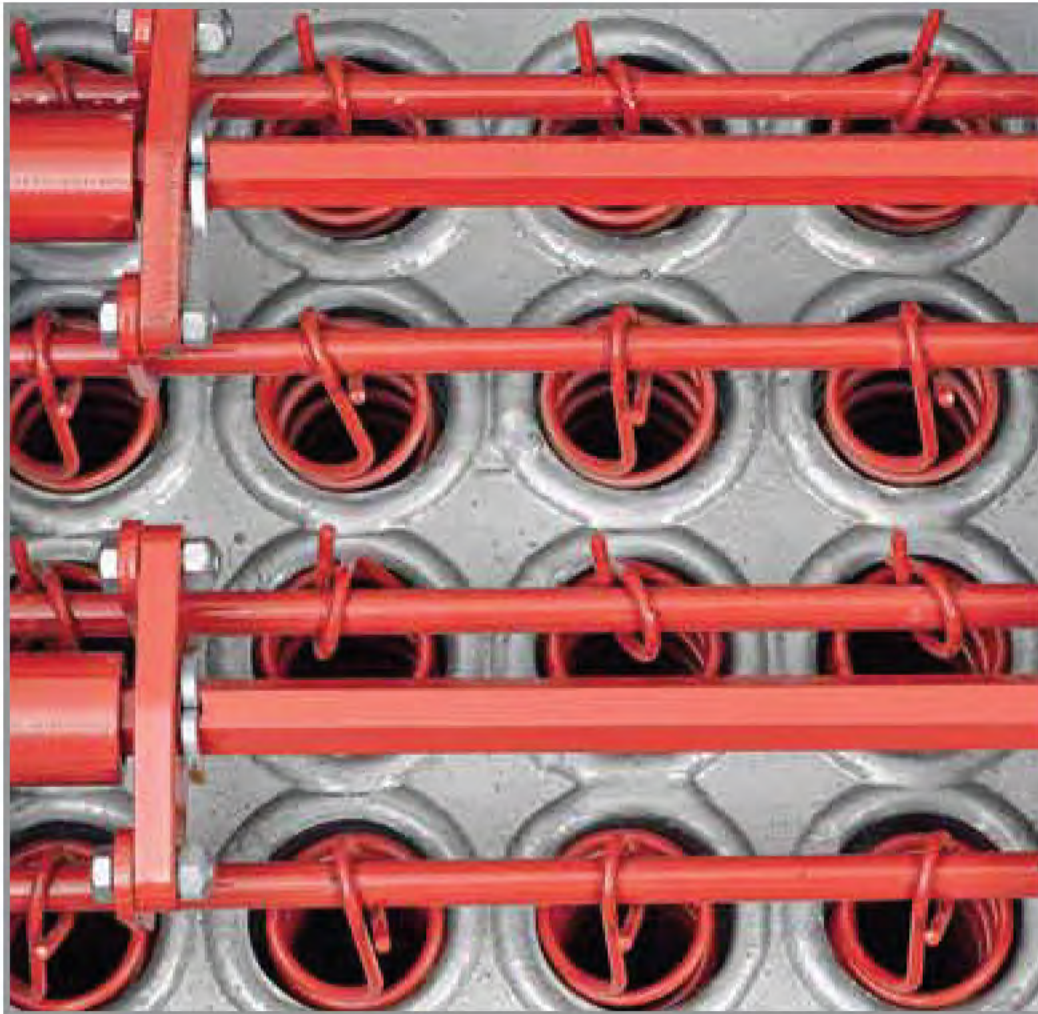


SL30-150kW

- Up to 150kW with a single system, can cascade multiple boilers up to 600kW.
- Heating efficiencies of over 93%.
- Heat exchanger features 4 rows of vertical, tubular cylinders. These allow multiple passes of hot flue gas and are automatically cleaned by turbulators to give high efficiencies.
- Ash created is automatically compacted into 2 large and easily removed drawers.



HEAT EXCHANGER FEATURES 4 ROWS OF VERTICAL CYLINDERS



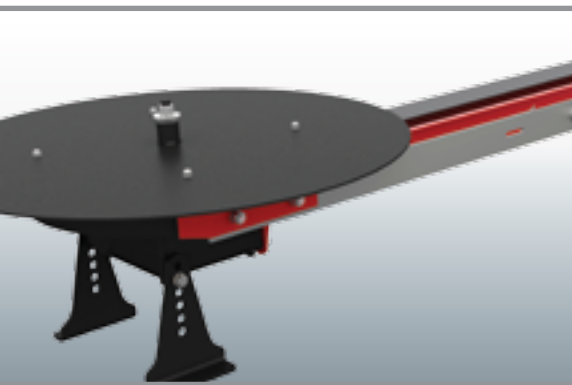


4M

STANDARD ROOM DISCHARGE

for fuel storage areas up to 4m wide

- Heavy duty bevel gears.
- Agitator arms – maximum width 6cm, maximum length 2.5m.
- The agitator disc stops rotating under the weight of a full fuel store, reducing power consumption.



5M

MEDIUM ROOM DISCHARGE

up to 5m wide fuel stores

- Heavy duty bevel gears.
- Agitator arms - maximum width 8cm, maximum length 3m.
- Sliding cover plate.
- Agitator disc stops rotating under the weight of a full fuel store, which reduces power consumption.



6M

TELESCOPIC ROOM DISCHARGE

for storage areas with diameters of up to 6m

- Heavy duty bevel gears
- Telescopic arms, link chains and springs.
- Cover plate with slide.
- Agitator disc stops rotating under the weight of a full fuel store, which reduces power consumption.

FLEXIBLE SYSTEMS

CONFIGURED TO YOUR REQUIREMENTS

6M



AUGER SYSTEM WITH SOLID SHAFT

- Screw diameter: 120mm.
- Shaft diameter: 50mm.
- Helical screw: 8mm welded on a screw length of up to 6m.

15M



AUGER SYSTEM WITH HOLLOW SHAFT

- Screw diameter: 120mm.
- Hollow shaft: 33.7 x 6.3mm.
- Helical screw: 4 to 8mm on a conical screw length of up to 15m.

AUGER DRIVE MOTOR WITH BURN BACK PROTECTION



ROTARY DISCHARGE HEAD



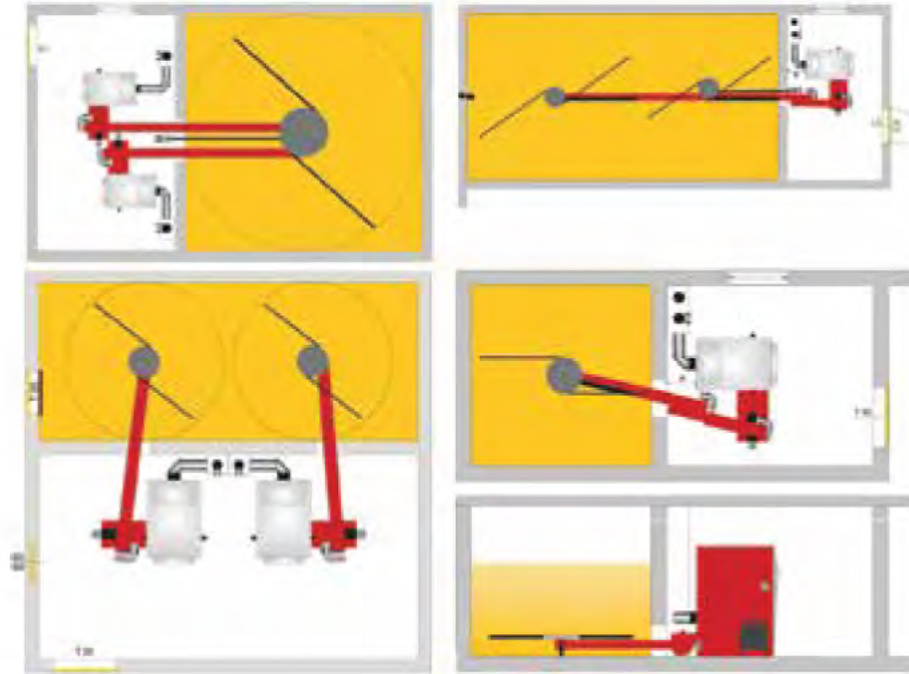


A RANGE OF INTELLIGENT, ROBUST & RELIABLE FUEL FEED AND DELIVERY SYSTEMS TO MEET A RANGE OF PROJECT REQUIREMENTS

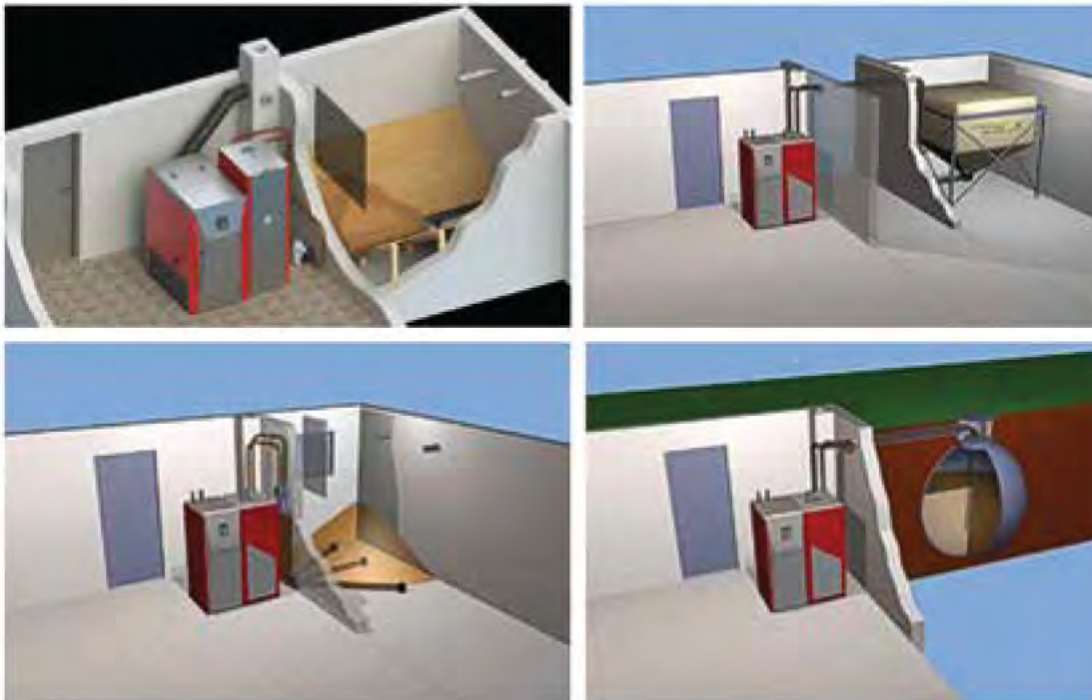


**SUITABLE FOR A WIDE
RANGE OF APPLICATIONS**

WOOD CHIPS



WOOD PELLETS





ELECTRONIC CONTROL PANEL

The electronic control panel is based on a sleek, modern, modular design and allows control of 16 individual heating circuits.



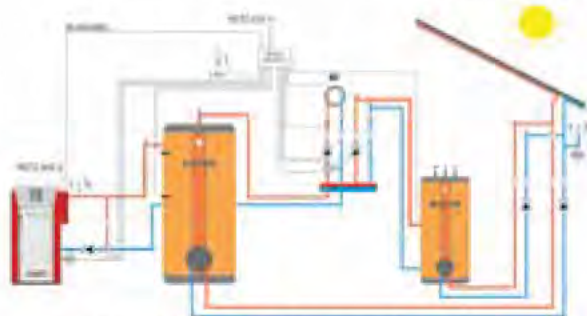
CLEAN COMBUSTION

Lambda sensor regulation to ensure optimised fuel combustion.



REGULATION OF MULTIPLE CIRCUITS

Separate rooms or buildings can be linked with no need for complex and expensive cabling. The boiler's settings can be controlled remotely from an internet connection.



Example; Hydraulic schematic, solar panels

Building 2 (above)
2x2 heating types;
– Radiators & underfloor heating.
– 2 hot water tanks.

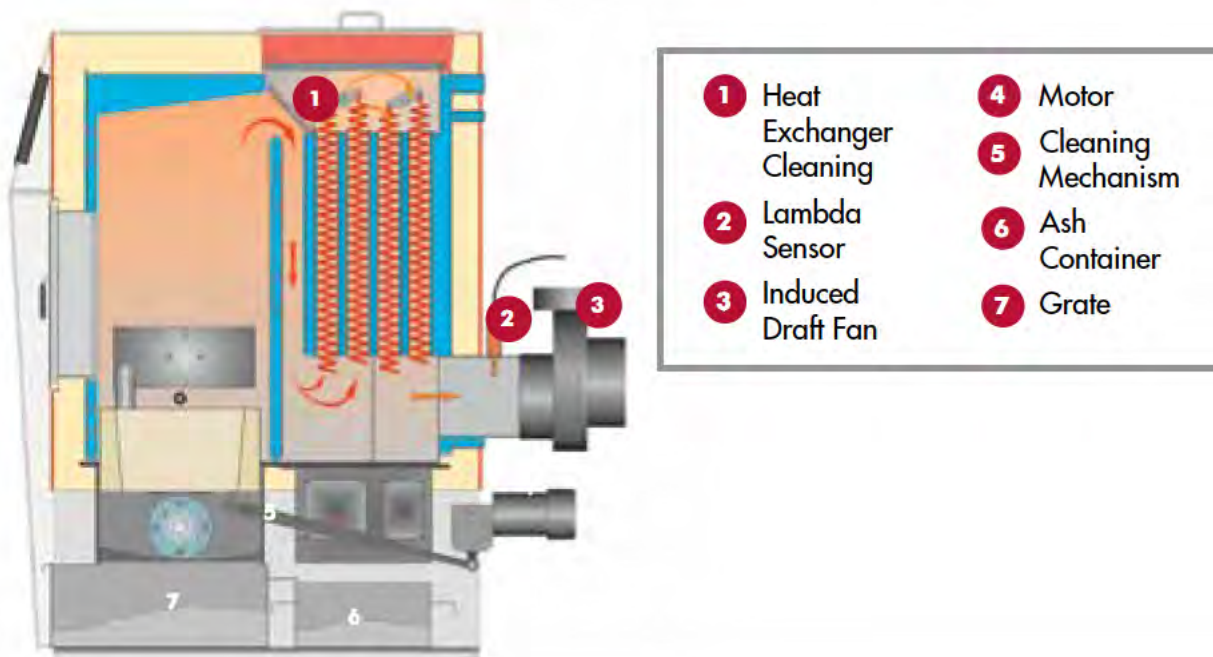
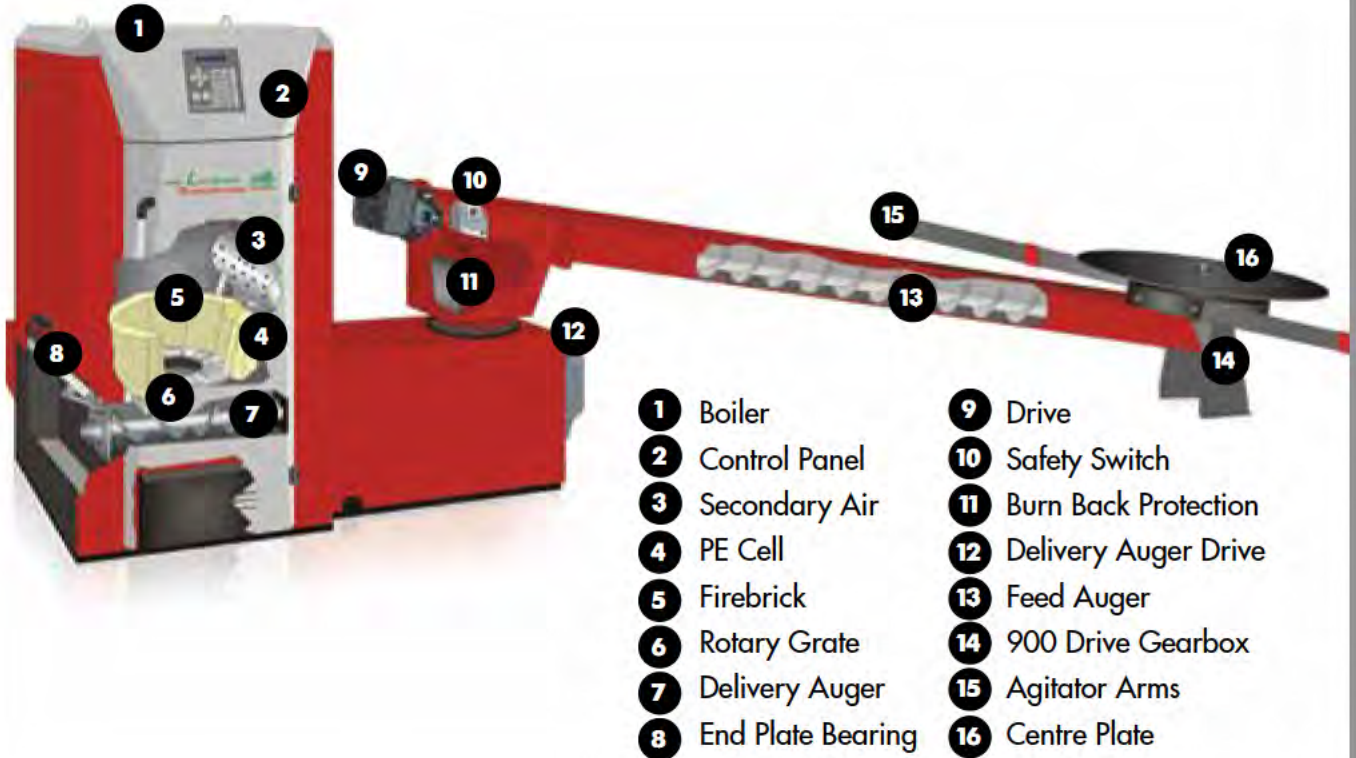
Building 1 (below)
One boiler, 2 groups of heating;
– Radiators & underfloor heating.
– 1 hot water tank.

Building 3 (above)
Buffer tank and solar panels;
– 2 groups of heating.
– 1 hot water tank.

Example: Modular build with up to 16 control loops

KEY FEATURES SL30-150KW SERIES

KEY FEATURES



SL 199-250 WOOD CHIP AND WOOD PELLET BIOMASS BOILER

SPECIFICATIONS		SL 199	SL 250
Max Heat Output	kW	199	250
Min Heat Output	kW	70	70
Combustion Efficiency	%	91.1 Min 95.3 Max	91.1 Min 95.3 Max
Width	mm	1,175	1,175
Height	mm	1,800	1,800
Depth	mm	2,650	2,650
Flow & Return Dia	mm	73	73
Flue Diameter	mm	250	250
Flue Connection Height	mm	1,370	1,370
Boiler Weight	kg	2,100	2,100
Auger Weight	kg	180	180
Water Content	Litres	390	390
Power Supply	A/V	16A, 400V	16A, 400V



A VARIETY OF WOOD CHIP FUEL DELIVERY SYSTEMS



TECHNICAL SPECIFICATIONS

SL 30-150 WOOD CHIP AND WOOD PELLET BIOMASS BOILER

SPECIFICATIONS		SL 30	SL 40	SL 50	SL 65	SL 80	SL 110	SL 150
Max Heat Output	kW	30	40	50	65	80	110	150
Min Heat Output	kW	8.4	8.4	12.4	12.4	21.5	23.7	41.9
Combustion Efficiency	%	93.1 Min 93.3 Max	93.0 Min 93.1 Max	91.9 Min 92.1 Max	93.1 Min 93.5 Max	91.7 Min 93.0 Max	91.3 Min 93.7 Max	91.8 Min 93.8 Max
Width	mm	630	630	770	770	870	870	1,050
Depth	mm	1,050	1,050	1,050	1,050	1,265	1,265	1,465
Height	mm	1,330	1,430	1,430	1,530	1,520	1,620	1,810
Flow & Return Diameter	mm	40	40	40	40	40	40	40
Flue Connection Diameter	mm	180	180	180	200	200	200	250
Flue Connection Height	mm	650	650	650	650	650	650	650
Boiler Weight	kg	555	595	675	740	920	980	1,405
Auger Weight	kg	82	82	82	82	83	83	85
Water Content	Litres	73	87.5	110	116	120	190	340



A RANGE OF WOOD PELLET FUEL DELIVERY SYSTEMS



FROM DOMESTIC AND AGRICULTURAL TO COMMERCIAL REQUIREMENTS;



WE HAVE THE PERFECT BIOMASS HEATING SYSTEM.



BIOMASS HEATING BY:

**Lindner
&
Sommerauer**



**UK DISTRIBUTOR;
RAINBOW HEAT
AND POWER**

**UNIT 5,
CEDAR COURT,
LOWMAN WAY,
TIVERTON BUSINESS
PARK,
TIVERTON,
DEVON,
EX16 6GT**

LET'S TALK ABOUT YOUR PROJECT
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