

bhsl 

bhsl FBC500
Sustainable Poultry Production





Process

Sustainable Poultry Production

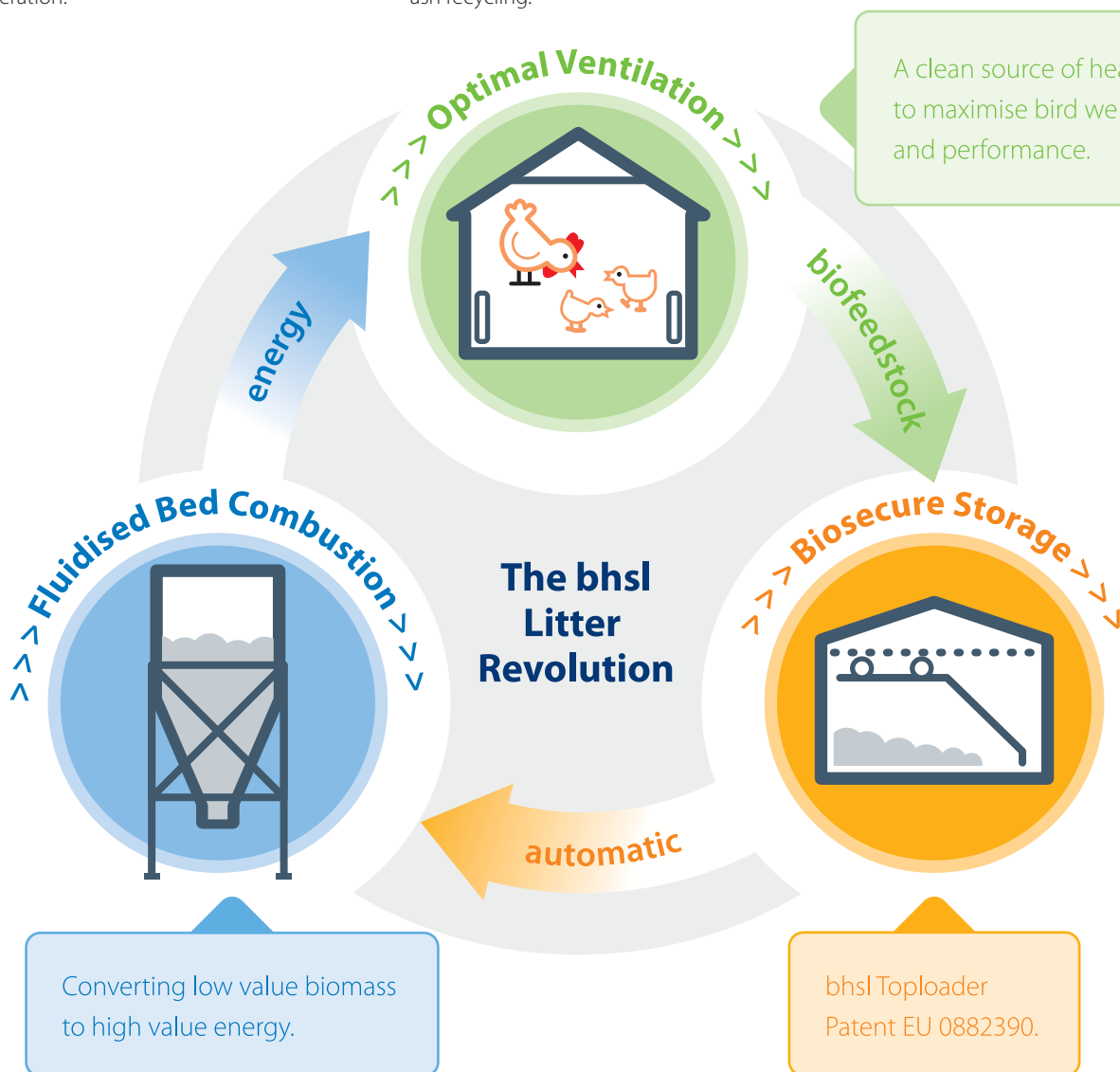
bhsl have miniaturised fluidised bed technology to enable its use in an on farm situation.

Litter from one batch provides clean, dry, renewable heat to sustain the next batch. Poultry litter is a valuable fuel - the litter from 1 chicken can provide the heating needs of 3 chickens, allowing the remainder to be used for electricity generation.

The enhanced environmental conditions not only provide energy savings but provide performance and bird welfare benefits. Producer margins can be increased several fold, more where renewable subsidies are available.

Environmental benefits include low carbon production, reduced ammonia emissions and ground water protection by controlled ash recycling.

Freedom from future oil price movements provide a uniquely sustainable system, where growers can reap the benefits of coupling food production with energy production.





Optimal Ventilation

Description

Optimum ventilation provides more heat and draws a greater volume of air through the house in order to manage house humidity. Gasses associated with LPG combustion are no longer present, resulting in dryer litter and better growing conditions.

Benefits

- ✓ Improvements in Food Conversion Ratio (FCR)
- ✓ Reduction in common skin irritations such as hock burn and footpad dermatitis
- ✓ Reduced ammonia emissions as litter is dryer
- ✓ Improved working conditions for staff
- ✓ Less time spent managing litter

Biosecure Storage

Description

Once a house is cleared of birds the litter is loaded into a biosecure fuel storage and handling system called a Toploader bunker. The air required for Fluidised Bed Combustion is drawn from this storage structure ensuring no leakage of odours or pathogens. Fuel handling is fully automated so farm staff have no further contact with litter after loading it in.

Benefits

- ✓ A unique handling system that enhances the stringent biosecure standards demanded by modern poultry operations
- ✓ Low energy – 2 small motors only used intermittently
- ✓ Stores all the litter produced on a farm with all moving parts easily accessible for maintenance
- ✓ Scalable to meet the specific site demand

Fluidised Bed Combustion (FBC)

Description

bhsl have miniaturised proven power plant technology to provide reliable on-site energy recovery from a variety of low calorific value, high moisture biomass such as wet wood chip, poultry litter and spent mushroom compost.

Benefits

- ✓ Energy Security – the energy from poultry litter can meet and exceed the energy demands of poultry production
- ✓ The valuable nutrients in the ash have one tenth the volume of litter and are more readily transported to where they are needed
- ✓ Incentives for Renewable Energy, such as the RHI in the UK
- ✓ Carbon Credits
- ✓ Providing other options to landspreading in poultry intense regions

bhsl Service Management & Assurance

Peace of mind and fixed energy costs.

Description

The bhsl technology is delivered as a managed service to the customer. Low calorific biomass has a high ash content and a continuous maintenance plan is required for trouble free operations.

Benefits

- ✓ 24/7 remote management by the bhsl Operations Centre
- ✓ All planned and unplanned maintenance by local staff managed from Operations Centre
- ✓ Fixed costs for term of contract, including all parts and labour, so growers can accurately price in the energy costs of production

Technical Specifications



Unit Dimensions 12m long x 8m wide x 6m high

Heat Output 500 kWth

Fuel Input (tonnes per day) **Wet Wood Chips** 7 tpd

Poultry Litter 5.5 tpd

Spent Mushroom Compost 7.8 tpd

Parasitic Load 17 kW_e

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