Briquette Manufacture

Case Study
'Waswood', Kirkby Malzeard

This operation, established in a joinery workshop, utilises oak shavings and sawdust created as a by-product from timber processing for the manufacture of briquettes to be sold onto the firewood market

Business Rationale

The briquette manufacturing operation was established to provide a solution for the otherwise problematic disposal of oak shavings and sawdust. Bagged briquettes are sold on-site and distributed to local shops and service stations.

Waswood briquettes

Current operation

Waswood currently produces some 45-50 18kg bags of 50mm diameter briquettes per week (up to 900kg total). The briquetter fills up to nine bags hourly and is run for up to five hours weekly.

The system is largely automated; the briquetter is mounted under the dust extraction system which removes the need for material handling. The finished briquettes are automatically run to a carousel where they are bagged. Manual labour is required to fit, remove and seal the bags. It is essential that the material processed is dry, if wet the briquettes do not bind. As there are no 3-phase electrics the operation is run by a diesel generator.

The briquetter is an Italian Ecomec and was installed in November 2006. The retail cost of the machine was £11,000 but the carousel was built in-house to avoid the £4,000 cost of Ecomec's own carousel bagging system. At current levels of production it is anticipated that the financial outlay will have been recouped by 2012. The briquetter has been reliable and generally maintenance has been carried out in-house.

On-site the bags retail at £2.50 (as at December 2007). The recommended price for external points-of-sale is £3.75 but this is not necessarily adhered to and it has been noted that customers are willing to pay higher prices.

Future Operation

There is scope for handling and processing hardwood residues from other local joinery workshops. This would increase output but would also require greater investment of time in collection of the raw material , running of the plant and distribution of the product.

An increase in production volume would be easier if the briquettes could be fed into dumpy bags and mechanically lifted and delivered. However potential customers interested in this sort of volume would either have to be buying the product wholesale to repack and remarket or have a significantly large application running on briquettes. Woodfuel heating systems would be ideal but automated systems currently favour chip or pellets.

Finally any future expansion is limited by the seasonality of the firewood trade. Evidently, unless there is a market for a heat and hot water boiler systems then demand is limited to five months of the year.

Conclusion

The size of the system is critical, organisations looking to install a briquetter need to consider the amount of material produced and the capacity of the machine bought.

Ecomec Briquetter

For Waswood the current briquetting operation does not stand alone as a viable business model. However as an alternative to having to pay for disposal of the by-product the briquetter and its income is worthwhile. In environmental terms, the burning of this material is a better option than consigning it to landfill.

Ecomec briquetters are distributed by Delapre Machinery. They can be contacted at 01536 521552 or www.briquette-it.com

For free and impartial advice about woodfuel contact:

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